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WILDLIFE IN NORTH CAROLINA

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Sara Schweitzer and John Brzorad set up a great egret trapping station in early dawn in an eastern North Carolina swamp. **PHOTOGRAPH BY MELISSA McGAW/NCWRC.**

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WILDLIFE IN NORTH CAROLINA

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Cover: A bobcat walks down a dirt road in the heart of the Albemarle Peninsula. The region harbors a dense population of these secretive predators. PHOTOGRAPH BY TODD PUSSER.

Wildlife in North Carolina is the official educational publication of the North Carolina Wildlife Resources Commission. It is dedicated to the sound conservation of North Carolina's wildlife and other interrelated natural resources and also to the environment we share with them.

EDITOR'S NOTE

JIM DEAN

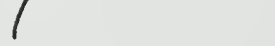
October, with its long, mellow days, often sets my mind wandering. Most years, it's been only my mind that has wandered. When you're steadily employed, breaking away from work for any appreciable length of time is difficult. It can be done, but I've always found it tough to put work completely out of mind when it's hunched there like large dark shadow to come back to. That's been more sharply felt over the past few years with the pressure of email and cell phones.

That hasn't stopped me from wondering what it may be like to pack for a few days, maybe longer, and hit the road for an extended fishing trip to wherever my wheels and then my feet might take me. I've mentally run through the checklist of what I would take so often that I believe I know that list by heart.

The problem is, it's a long list, and it never gets shorter. Recently I read a story about a fellow in Wisconsin who drove to his duck-hunting cabin in a near blizzard and had to stop often to cut fallen trees from the road with his ax so that he might continue this journey into the night. I realized I have no such piece of equipment. The list just got a little longer again. Of course, I don't plan to be out in near-blizzard conditions, and we don't have those in North Carolina anyway.

I've never been able to follow the advice of that early 20th century woodsman and Stewart Edward White to "Go light." In "The Forest," White wrote, "There are said to be sixty-eight roads to heaven, of which but one is the true way, although here and there a by-path offers experimental variety to the restless and bold. The true way for the man in the woods to attain the elusive best of his wilderness experience is to go as light as possible. . . ."

I fear I will never reach White's high plane. There seem to be too many considerations. Even for an afternoon trip of a couple of hours to fish a local trout stream I seem incapable of carrying fewer than several dozen flies. Usually I do keep track of how many different flies I use, and I can count them on one hand. It is a shortcoming. One day I'll carry one small box with a half-dozen flies or so and have a great afternoon, but I suspect I'll be a tad uneasy the first few times.



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AT PLAY WITH
THE GIANTS
When summer rolls around, big red drum find a home in the Pamlico Sound

Remembering Another Day of Playing with Giants

Thank you for the outstanding article, "At Play with the Giants," in the July/August issue of *Wildlife in North Carolina* magazine. It brought back special memories of my and my wife's first encounter with these beautiful, magnificent fish, the giant red drum.

On this special day in September 2013, we were scheduled to go fishing with a great friend who lives on Oak Island. He gave us a choice to catch table fare or go after a trophy that had to be released. He had good information from a friend that the big red drum were in around the "hot spot" off Oak Island. The hot spot is where the discharge water from the nuclear power plant comes out in the ocean. We chose the latter for a chance at a trophy fish.

We began by catching some finger mullets for bait and headed out. As we came out of the Cape Fear River a strange event was occurring. The ocean looked like a mirror. There were no waves or swells. The only disturbance to the water was from the discharge water. We anchored on the edge of the hot spot and baited up several medium to heavy rods. My wife has an affinity for her special rig, a Zebco 808 with a flounder rig, spooled with 17-pound test monofilament. I kind of questioned if it would be enough to handle the big fish, but it would later prove itself.

There was only one other boat in the area, and we began seeing the two guys fighting, landing, photographing and releasing several nice red drum. The next thing I knew my wife stated with excitement, "I got one!" The drag was screaming and the battle was on. She made several trips around in the boat gaining a little just to have more line strip off the reel many times. She began to tire and handed me the rod and I continued the battle.

Wow, I could tell very quickly that this was no ordinary fish and after a while I even began to tire from the constant reeling and pumping the rod only to have more runs with the line stripping off. Time seemed to stand still. I handed the rod back to her for a brief rest that didn't last long as she tried again and handed the rod back to me, stating that it was probably a big sting ray and maybe we needed to cut the line. No way, I exclaimed, we had fought this thing for a long time and I was going to see what it was. I continued the fight and the fish began to give and I brought it to the boat.

What a beautiful fish. The reddish copper color was brilliant in the sunlight and it was truly a magnificent fish. My friend netted the fish and brought it aboard. He measured the red drum and it was 44 inches long. Almost 4 feet! After some photos we revived and gently released this magnificent creature. What an experience!

As I baited my wife's rig I noticed the mono was all curly-cued from stretching during the fight. She cast back out. We were not done yet! We got another strike and guess who got it? Again, my wife with the Zebco 808. Only this time she managed to completely conquer this fish on her own. Another red drum, 37 inches long. It was photo time again. What a day!

Shortly after, the blues started biting and we decided to reel in and head back in. This was truly an experience that will last a lifetime and hopefully get to experience again.

Virran L. Crump
Albemarle

Tarpon: The One and Only Game Fish

I would like to supplement your fine article on tarpon fishing ["Passage of the Silver Kings," July/August]. In addition to the exciting tarpon fishing in the Pamlico, there has been excellent tarpon fishing around Bald Head Island for many years. Many years ago our Marine Fisheries Commission met at Bald Head, and I made the motion to make the tarpon a game fish.

That took the tarpon out of the market, and despite objections from the commercial interests, who claimed someone might want to eat one, the tarpon became our only game fish. Unfortunately it still is.

George T. Clark Jr.
Wrightsville Beach

I really enjoyed Dusty Wilson's article on the tarpon fishing in the Pamlico Sound.

Although it's not hard to understand why it's very difficult for a fly-fisherman to land a tarpon in this area, it has always surprised me that "apparently" there is no record of anybody ever landing a tarpon on a fly rod in North Carolina.

Can you guys shed any light on this being accurate? Seems to me that some of the area guides would make it their life's work to be the first to land one on a fly if for no other reason than to promote their business. Love to know if you have found this "no N.C. tarpon on a fly" to be accurate.

Thanks so much for *Wildlife in North Carolina* and the wonderful articles in each issue!

Tom Morketter
Southern Outdoorsman
Fayetteville

Editor's Note: Tom, as far as we know, no one has landed a tarpon on the fly in North Carolina. The simple reason is that it's not a very productive way to fish for the species in our waters, which are stained and thus have limited visibility. In South Carolina some anglers have fished with sailfish flies through chum and landed tarpon in deep water, but for many people that would not qualify as fly-fishing.

write us *Letters should be sent via e-mail to* **letters@ncwildlife.org** *or through regular mail to Letters,* Wildlife in North Carolina *magazine, 1712 Mail Service Center, Raleigh, NC 27699-1712. Please include your name, address and daytime phone number. Letters chosen for publication may be edited for clarity and length. Editor Jim Wilson may be reached at 919-707-0177 and Associate Editor Mike Zlotnicki at 919-707-0175. To subscribe call 1-800-786-2721.*

Barnhill leaves standing corn stalks after harvesting to serve as blinds for hunters. This not only allows cover for gunners but also allows the hunt managers to space hunters far enough apart for safer gunning and optimal field coverage.

An Opening Day Tradition

Bob Barnhill's annual dove shoot is part hunt, part social gathering and all fun.

Written by Mike Zlotnicki & Photographed by Melissa McGaw

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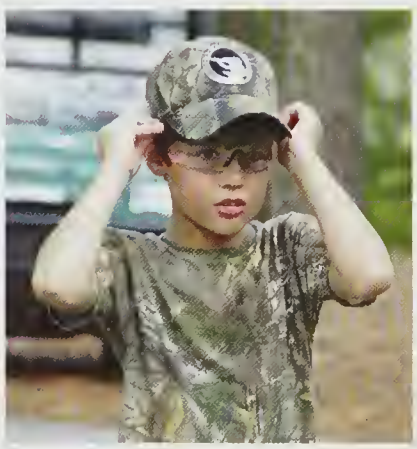
For some it's the appearance of yellow school buses. For others, it can be the pageantry of college football. For hunters in the South, the harbinger of fall — and what's to come — is the opening day dove hunt.



Ben Pitt, a young dove hunter from Tarboro, gets his cap straight before loading up and heading out to his dove blind.

A dove shoot can range from a couple of guys pass shooting birds to a full-on social event replete with entertainment, food and, of course, some wing shooting. Bob Barnhill knows. For over 20 years he's been hosting a dove shoot the weekend after Labor Day, and it's grown and morphed as the years have passed.

"I think we started in '92 and we've never missed a year since," says the Tarboro native and former N.C. Wildlife Resources commissioner. "One year we had it between hurricanes. It basically started out as a friend thing, then it became partly friend, partly company, and now it's partly friends, partly company and partly clients."

Across the Tar Heel state about 70,000 people participate in dove hunting each year, most on the opening two weekends of the season. Barnhill's shoot averages about 100 adults and maybe half that many youngsters.

"We have a safety talk first, and we have skeet shooting early on," says Barnhill, who still opens shooting at the traditional noon hour although the regulations have been changed to allow morning hunting. "If anybody wants to take a little lesson we have folks out there to help." Lunch is Brunswick stew for the hunters.

Around noon, the hunters are loaded onto utility trailers and wagons towed behind ATVs and other vehicles, and given another safety talk ("You know, no low birds, eye and ear protection, don't shoot outside your blind. We've been very fortunate from a safety standpoint, we've had no issues.")

Barnhill has company employees volunteer to help with the hunts, and they ferry drinks to the hunters and dogs. Televisions are set up at the base camp for those who limit out (or quit) to watch the college football offerings in the afternoon shade.

"Then, we come back in and have a catered meal of barbecued chicken, stew and pork. We clean out the freezer of quail from last season and fry 100–150, and then we make homemade ice cream," says Barnhill.

Sounds like Barnhill is the king of dove hunting in his neck of the woods, but he's more Pied Piper. "I have never hunted at one of my hunts, never pulled the trigger," he says.

His only regret? "I wish I'd have taken pictures over the years of everybody who shot their first dove at one of my hunts."

Instead, he welcomes them back — and now their children — each year. ◆

Mike Zlotnicki is the associate editor of Wildlife in North Carolina. *He may be reached at 919-707-0175.*

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1: Bob Barnhill, hunt organizer, talks to a group of hunters about safety. Barnhill has been sponsoring the hunt since the early '90s, but has never pulled the trigger at one of the hunts he hosts.

2: This trio of happy hunters displays some doves taken in a sunflower field.

3: Mike Jones of Raleigh talks with fellow hunters after a long day of gunning for doves.

4: Will Tharin of Rocky Mount mans a blind under the watchful eye of his father, John Tharin, who points out the presence of other hunters nearby.

5: Chuck and Sandy Roberson mark incoming birds from their blind of corn stalks. The high temperatures and cut field make short pants dove-field chic early in the season.

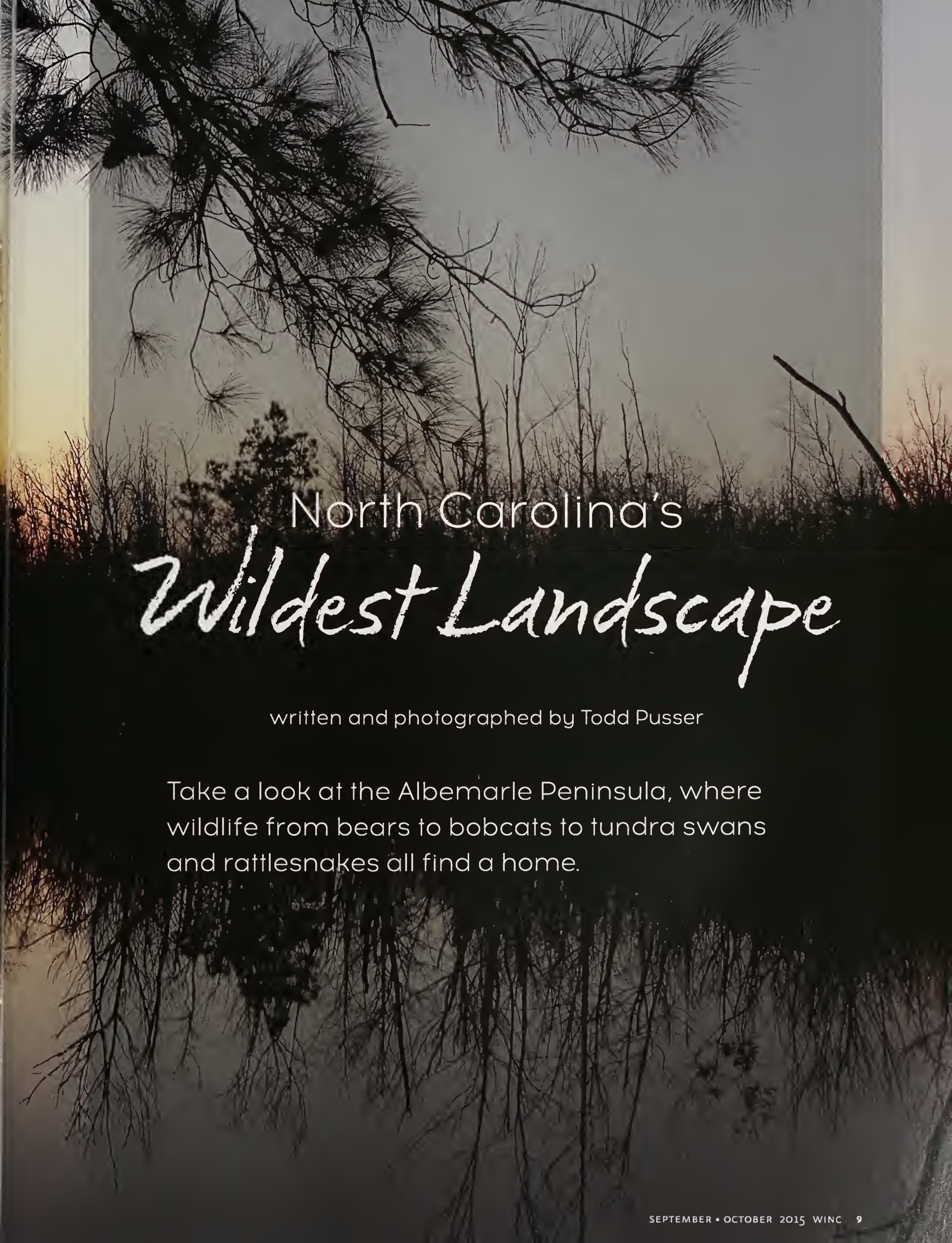
6: Bruce Kohn shows off a dove. He's sporting a clays shooting vest to tote ammunition and game.

7: Dove hunting can be a family affair. It's a good chance to teach firearm safety and hunting etiquette.

8: Joe Pitt, Sr., accepts a retrieve from his black Lab. Hunters are reminded to carry extra water for their dogs, and hunt helpers continuously ride the fields to deliver water and sodas to hunters.

9: Guests at the Barnhill dove hunt socialize in the evening hours after the birds have been dressed and the guns cased. A meal of pork barbecue, chicken and sides awaits the guests after the hunt.

10: Spencer Gardner marks an incoming dove and then swings on it from his blind of sunflower stalks and morning glory.



North Carolina's Wildest Landscape

written and photographed by Todd Pusser

Take a look at the Albemarle Peninsula, where wildlife from bears to bobcats to tundra swans and rattlesnakes all find a home.

Heat from the summer sun shimmered off the dusty gravel of Milltail Road in the heart of Alligator River National Wildlife Refuge. Pulsating songs of cicadas echoed through the thick pocosin as I slowly drove my truck down a long, straight dirt road bordered on each side by large soybean fields and a shallow irrigation canal. My good friend in the passenger seat, biologist Jeff Beane, raised his hand and quietly motioned for me to stop the vehicle as a small covey of quail walked out onto the road. Realizing our good fortune at sighting this declining species, we settled back into our seats with binoculars in hand watching the milling birds.

Suddenly, motion in the tall grass just off the road beyond the quail caught our attention. Adjusting the focus of my binoculars, the distinctive pointed ears and cheek ruffs of a bobcat appeared in my field of view. The feline, oblivious to our truck 50 yards away, intently stalked the birds walking down the dirt road. The quail, perhaps sensing danger, abruptly flushed from the ground in an explosion of wings and motion leaving the bobcat literally in the dust. The cat, looking somewhat perturbed, nonchalantly walked across the road in front of our truck and jumped onto a fallen tree that was lying across the irrigation canal. It slowly walked the length of the log, across the tannin-stained water, sat down on the edge of the canal, and quietly began grooming itself under the shade of a low-hanging tree. Astonished, we sat transfixed, watching it lick its luxurious coat from just yards away. The bobcat occasionally glanced our way as it continued to groom, barely acknowledging our presence and providing the longest looks either Jeff or I have ever had of this secretive predator in the wild.

Such are the joys when one explores the vast area known as the Albemarle Peninsula in the Coastal Plain. On any given day in this rural region, there is no telling what you may encounter—perhaps an American alligator, basking on the edge of a sunny creek bank at the northern limit of its natural range, or maybe a beautifully patterned corn snake, scales awash in brilliant shades of orange, slowly crawling across a dirt road at sunset, or the incredible sight of thousands of snow geese flying over a bright winter's moon.

Sandwiched between the Albemarle Sound to the north and the Pamlico Sound to the south, the Albemarle Peninsula is made up of five counties (Beaufort, Dare, Hyde, Tyrrell and Washington) and encompasses a vast area of nearly 3,200 square miles. The rural towns that dot the peninsula are rich with history. One, the small town of Bath, nestled in the southwest corner of the peninsula in Beaufort County, is North Carolina's oldest town. Incorporated in 1705, Bath also served as our state's first capital until 1722. However, it is the region's wealth of natural history that makes it unique.

When viewed from a car window racing 60 mph down U.S. 64 toward the beaches of the Outer Banks, as most North Carolinians experience the peninsula, the flat, low-lying landscape might appear as nothing more than a monotonous patchwork of marshland and expansive agriculture fields. Indeed, while most of the peninsula forests have been logged extensively over the last century and converted to farm fields, tens of thousands of acres remain protected by four national wildlife refuges, two state parks, numerous Wildlife Commission game lands

and Nature Conservancy properties. The peninsula harbors many natural freshwater lakes—rarities in the state. The largest, Lake Mattamuskeet, is approximately 18 miles long, 6 miles wide and covers nearly 40,000 acres.

Three of North Carolina's largest rivers—the Alligator, Roanoke and Tar rivers—reach their termini here, emptying into the vast Pamlico and Albemarle Sounds and creating one of the most important and productive estuaries in the eastern United States. Smaller, blackwater creeks and rivers, such as the Scuppernong, meander throughout the peninsula. Given all these unique and diverse natural communities, it is no surprise that this immense region provides wildlife viewing opportunities unlike any other place in the state.

Wildlife in All Seasons

No matter the time of year, the Albemarle Peninsula offers much for the outdoor enthusiast, whether you are a kayaker, fisherman, hunter, photographer, hiker or birder. For wildlife watchers there are no shortage of subjects to enjoy.

The thick, impenetrable pocosin forests scattered throughout the peninsula harbor the highest density of black bears anywhere in the eastern United States. It is not uncommon to see more than a dozen bears in a single day in the vast soybean and corn fields of Alligator River National Wildlife Refuge or Pocosin Lakes National Wildlife Refuge. The bears are active year-round and can be observed on blustery, snowy winter days or the hot, humid days of summer, when the air seems so thick you can cut it with a knife.

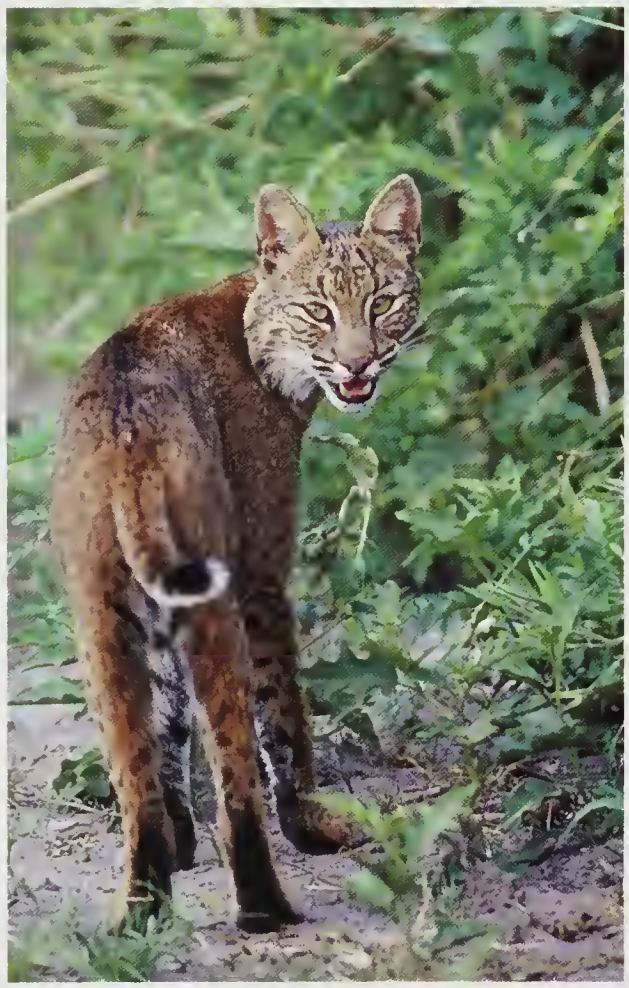
The Albemarle Peninsula is the only region in the world that supports a population of wild, free-roaming red wolves. This endangered canid was once extinct in the wild. Only through dedicated captive breeding programs was the species able to survive. In 1987, the Fish and Wildlife Service successfully re-introduced red wolves into Alligator River National Wildlife Refuge, eight years before the better-known introduction of gray wolves into Yellowstone National Park. Today, an estimated 90–110 individuals range throughout the peninsula's 3,200 square miles. Though sightings are rare, I have seen red wolves more than a dozen times over the years, often from the major highways that transect the region. Recently, my girlfriend and I watched a pair, including one animal with a radio-collar, walking slowly across a vast soybean field along N.C. 94 south of Columbia.

During the winter months, huge flocks of tundra swans and snow geese, sometimes numbering into the tens of thousands, gather in corn and soybean fields around Pungo Lake and Lake Mattamuskeet, providing what many call the greatest wildlife spectacle in the state. Red-winged blackbirds and grackles also winter in those same fields, sometimes in flocks so large they block out the sky.

Birds of prey are abundant throughout this region. Merlins, sharp-shinned hawks and Northern harriers stalk the agriculture fields, hunting the vast blackbird flocks. Bald eagles are seen nearly everywhere there is water, especially around Lake Mattamuskeet. During winter, when leaves are off the trees, the silhouettes of great horned owls are frequently observed in the fading twilight of dusk, perched along road rights-of-ways and the edges of fields.

Spring is my favorite season to visit the Albemarle Peninsula. The region explodes with activity as the dreary, cold days of winter come to an end. The songs of brilliantly colored migratory songbirds, such as prothonotary and prairie warblers, reverberate through the forests. Families of river otters play in irrigation canals that border large fields. Numerous painted turtles and yellow-bellied sliders crowd submerged logs in shallow waterways, soaking up the warmth of the sun. Snakes, including rare species such as the timber rattlesnake and glossy crayfish snake, emerge from their winter hibernacula and are commonly seen crossing roads throughout the peninsula. Once in April, I watched a barred owl repeatedly swoop down from its perch in a dead tree to the waters of a shallow canal to catch crayfish, which it readily consumed just yards away from my vantage point.

Thistles, prickly and drab looking most of the year, are common along the edges of dirt roads in the region's wildlife refuges. They burst with color as they bloom in May, providing a tempting nectar resource for swallowtail butterflies. It is not uncommon



The Albemarle Peninsula offers the best wildlife viewing of any area of the state, no matter the time of year. Depending on the season, bobcats, corn snakes and tundra swans can all be seen in this vast rural area.

NATURE'S WAYS

Why Do Bobcats Have Tufts On Their Ears?

See Nature's Ways, page 43.

A full moon rises over a patch of forest killed by prolonged exposure to salt water along Hwy 264 near Stumpy Point. A playful gray fox rolls around on a dirt road while a black swallowtail gathers nectar from flowers of a thistle (opposite page). Barred owls hunt crayfish and families of river otters gather in productive waters throughout the peninsula.

to see a dozen or more of these colorful insects clustered on a single plant, black and yellow wings spread wide. Numerous other spectacular flowers, such as water lilies, blue-flag iris, and pickerel weed, also reach their peak bloom during this time of year.

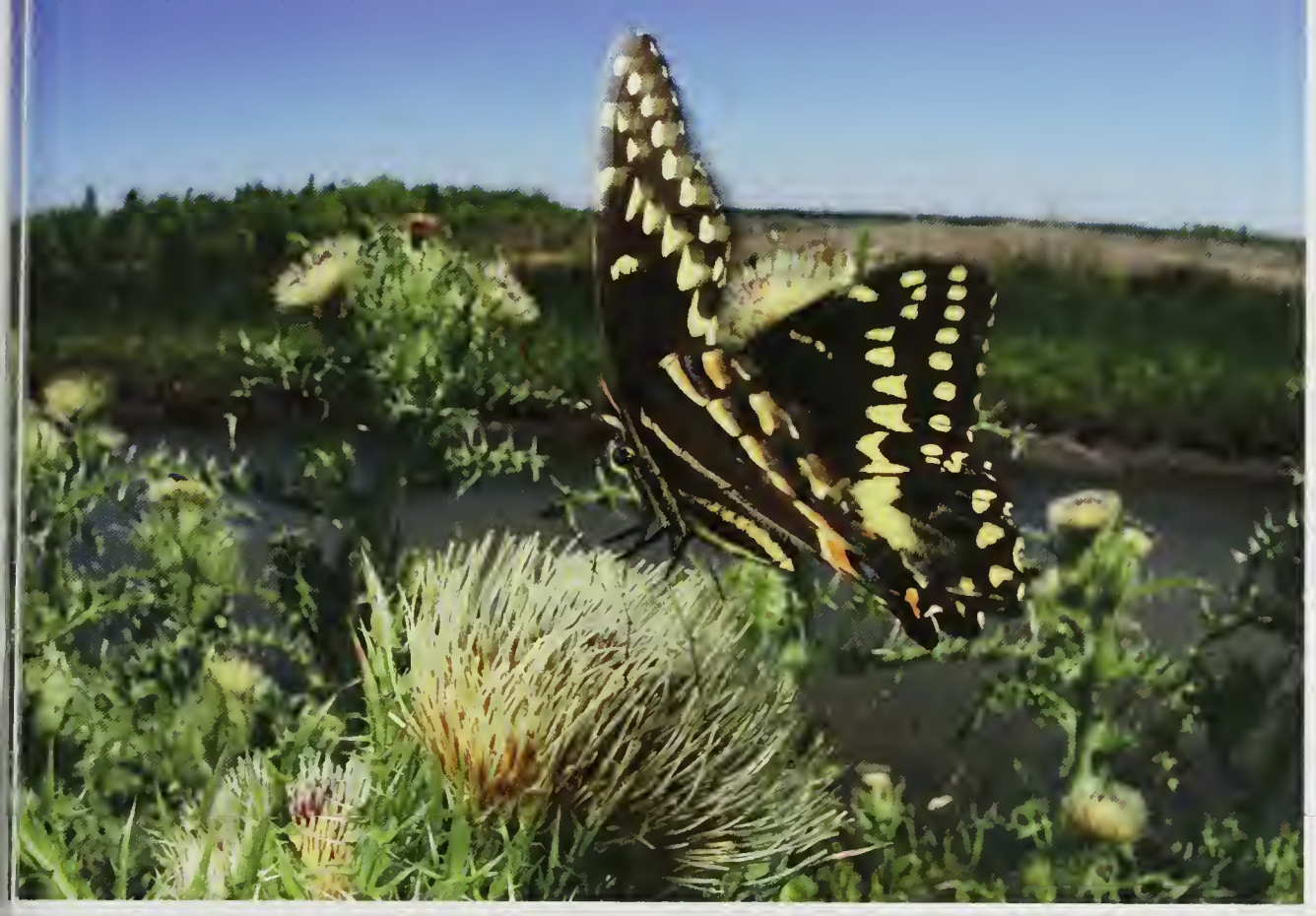
Even during the long, humid days of summer, there is much to see, providing you can withstand the onslaught of biting flies and mosquitoes that swarm you the instant you step out of your vehicle. It is during these months that black bears, especially females with cubs, are most easily seen. Milltail Road in Alligator River National Wildlife Refuge and North Lake Drive in Pocosin Lakes National Wildlife Refuge provide excellent opportunities to observe bears foraging in soybean fields from the safety and comfort of your automobile.

The long, straight dirt roads that stretch for miles and miles through areas of dense forest and vast agriculture fields in the wildlife refuges act as super-highways for all manner of creatures. Gray foxes, deer, turkeys, and red wolves use the roads to hunt for prey, mark territories, and search for mates. The bobcat, the state's most elusive large predator, can be observed walking refuge dirt roads during all hours of the day.

The cooler days of the fall bring a welcome relief from the biting insects. As the days grow shorter, foliage on the cypress trees that line swamps and waterways, begins to change color to a brilliant red. White-tailed deer become more active and are regularly seen in freshly plowed fields and crossing dirt roads as the rutting season approaches. Many of the regions breeding birds migrate south while other species from more northern climes move into the area to replace them.

An Uncertain Future

Despite its abundance of natural wealth, the Albemarle Peninsula faces an uncertain future. The region's mosaic of forests, vast agriculture fields, cypress swamps, fresh and saltwater marshes are all very low-lying, just a foot or so above sea level, and are considered by many to be among the most vulnerable areas in the United States to an increase in sea levels associated with climate change. Increasing temperatures across the globe indicate that the Earth's climate is



shifting into an extended warming period. These events are nothing new and have occurred periodically throughout our planet's history as indicated by the fossil record. In fact, the entire peninsula was once covered by a shallow sea. However, some scientific models place much of the region back under water in as little as 100 years. While these climate change models may represent worse-case scenarios and are impossible to predict accurately, they cause concern. Any change in global sea levels could potentially cause devastating environmental and economic consequences to the region with farmers and native wildlife feeling the greatest impacts.

While many coastal U.S. communities are engaged in heated debate about the validity of climate change, a progressive and pioneering effort is under way on the Albemarle Peninsula. Collaborators from The Nature Conservancy, the U.S. Fish and Wildlife Service, local universities, and Duke Energy are working diligently to protect this region against any future change in sea level. The Albemarle Climate Change Adaptation Project, as the initiative is called, is a long-term management plan that seeks to maintain the continued health of the peninsula's ecosystem by stabilizing the surrounding land using innovative methods.

With the aid of aerial photography, scientists pinpoint areas along the Albemarle Peninsula most vulnerable to erosion from rising seas and target those specific regions to ensure long-term ecosystem stability. Large oyster beds are being created just offshore from those areas in an effort to suppress erosion from large waves. The oyster beds also act as a natural filtration system, cleaning the water from sedimentation buildup and creating habitat for other aquatic species.

Over 100 years ago, miles upon miles of irrigation canals were dug throughout the Albemarle Peninsula for agricultural purposes. During major storms such as hurricanes, salt water from the surrounding sounds gets pushed far inland up these canals, killing trees that are unable to cope with the increase in salinity in the water table and causing degradation to peat deposits so prevalent on the peninsula. Water control structures are now being placed in canals at strategic locations around the peninsula in an effort to restore a more natural hydrology and increase wetland habitat. Thousands of salt-tolerant trees, such as bald cypress and black gum, have been planted along shoreline most vulnerable to erosion in an effort to make the land more stable. Invasive plants are being removed and in their place more resilient native marsh grasses are being planted.

What the Albemarle Peninsula will look like 200 years from now is anybody's guess. It is certain that the present shoreline will not be the same. Portions of it could be under water. Change has been an eternal constant for these low-lying areas. Hopefully, with continued dedicated efforts to prepare for potential sea level rise, this unique region of North Carolina, with all its incredible diversity of wildlife, will continue to enthrall Tar Heels for many generations to come. ◆

Todd Pusser is a marine biologist and long-time contributor to Wildlife in North Carolina.

when ants are the answer

There are some flies that have stood the test of time, yet none are more effective or simpler to tie than a hard-body black ant. From spring to fall, ants are prevalent around any piece of water. They're frequently falling in, being blown in or washed in from adjacent surroundings and are quickly gobbled up by hungry fish. Our freestone mountain trout streams don't have very large aquatic insect populations. Although you may see some aquatic insect activity throughout the summer, most of the time it's sporadic. Because of this, most of the trout that live in them have become opportunistic feeders. The other food sources are terrestrials, which are available all summer long. This makes a hard-body ant an excellent choice to offer anytime.

written by Jeremy Grady | *photographed by* Melissa McGaw

Few flies are as easy to tie, durable and appeal to so many freshwater fish as a hard-body black ant.

One spring in Lost Cove Creek, Greg Brinkley and I were fishing for wary browns. We fished those plunge pools with our dry flies, but the fish didn't seem interested. We tried small flies, larger flies, and nymphs as droppers and all we got were a few small trout. On a whim, I dug around and found a number 10 fat, glossy black ant; it looked like it was begging to be tied on. I also remembered the teachings of Jim Dean when he talked about how the late A.J. Johnson would catch lots of trout on this fly fished as a dropper.

So I had to try it; we didn't have much to lose. The next three pools yielded a 10-, a 12- and a 15-inch brown. Greg started digging in his boxes for a black ant. As the day progressed, we caught a brown trout from almost every plunge pool. Needless to say, a special place was created in my fly box for black ants. This was just one day out of many when a black ant saved the day for me.

Truthfully, fish probably eat all kinds of dark insects that fall in the water. Ants, beetles, various bees or wasps or even a cricket won't be passed up by a hungry trout. And I'm sure this pattern passes for any of these of insects. Once you tie on one of these flies, you could be matching many insects that the trout have been feeding on.

There are many variations of black ant fly patterns, and they all catch fish. Some are the floating kind, and some are the sinking kind. The particular pattern I'm talking about is the simplest of all ant patterns, a hard-body ant. This is actually a sinking fly, or a wet fly. Although I have caught fish using the fly in a traditional wet fly stripping technique (I guess they take it as some sort of hatching insect, but fish will hit it this way), but for our plunge pools in western North Carolina, a dead drift presentation clearly works best. With that in mind, a sinking fly drifting in the current may be hard to see. Therefore, it's my experience that fishing the ant as a dropper is by all means the best way to fish them.

For trout in these streams I primarily use a size 10. I know this sounds big, but I've not done nearly as well as using ants much smaller. I think trout pick it

Both the black ant pattern (previous page), the red ant (right) and a yellow jacket imitation can be fished as a dropper from a popping bug or by themselves as subsurface offerings.

up easier in these streams, plus they don't want a juicy meal to get away. I've fished smaller flies, and surprisingly haven't had as much luck with them. I've actually done better with smaller ants on tailrace streams.

To rig a dropper, start with a high floating dry fly such as a Wulff or a hopper. Knot a 15-inch piece of tippet the same size of the tippet that's tied to the fly, to the eye of the hook and at the other end of the tippet, tie on the ant. I fish it as I would the dry fly alone. When the fish takes the ant, the dry fly acts like an indicator.

Don't limit yourself to fishing black ants. Red, or cinnamon, as fly fishermen call them, can be very effective also. I've never given them much thought until one day I was telling my dad about a good fishing day I had for trout using black ants. He asked me if I ever tried red ants, and that he had luck with them. I went home and tied some with orange thread, they looked really good. On the next trip I gave them a try and discovered that trout love red ants as well. Truthfully, fish probably see as many red ants as they do black. I keep plenty of each in my box.

As for fly-fishermen who pursue warm water species, a black ant is a staple in their fly boxes. I remember a day this past spring when I was fly-fishing one of the local lakes that is known to have some very large bluegills. In the clear water, I could see the clusters of black basketball-size circles that were in about 6 feet of water off the end of some blowndown trees. Knowing the beds were as deep as they were, I attached about 2 feet of 8-pound tippet to the eye of a size 8 popping bug. At the other end I knotted a number 10 black ant.

I cast the flies to the outer edges of the beds and allowed several seconds for the fly to sink. The ant probably sunk a foot or so when a black, hand-sized bluegill appeared behind the fly. I couldn't see when it took the ant, but when it turned and began to swim back to the beds, the popper was the giveaway. I found two different sets of beds along the bank, and they each yielded bluegills that ranged from 8 to 9 inches. And every one took the ant.

One of the joys of fly fishing for panfish is that the chance of hooking a bass always looms. And if you're in a lake that has smallmouth bass, your odds get even better. Numerous times I've been fly-fishing for panfish and had an 18-inch smallmouth sip an ant. I think the fly poses an easy meal for fish. For panfish, again I use a number 10. I don't see any need to go any smaller. Plus the size 10 holds those big old bass better when they decide to bite. If you have good eyesight, and you're fishing clear water, you can fish the ant as a single fly and watch the fish come up and eat it. Otherwise, I mostly rig it as a dropper to a popping bug. This also allows the fly to sink to fish that may not come all the way to the surface for a fly.

Some of the original black ants were tied with acetone thread. You tied the fly with the special thread and when you were finished, you dipped it in acetone. This caused a chemical reaction creating a shiny and durable fly. In recent years, fly-tiers have been

coating the fly with epoxy glue which created the same qualities, plus it gave a translucent appearance.

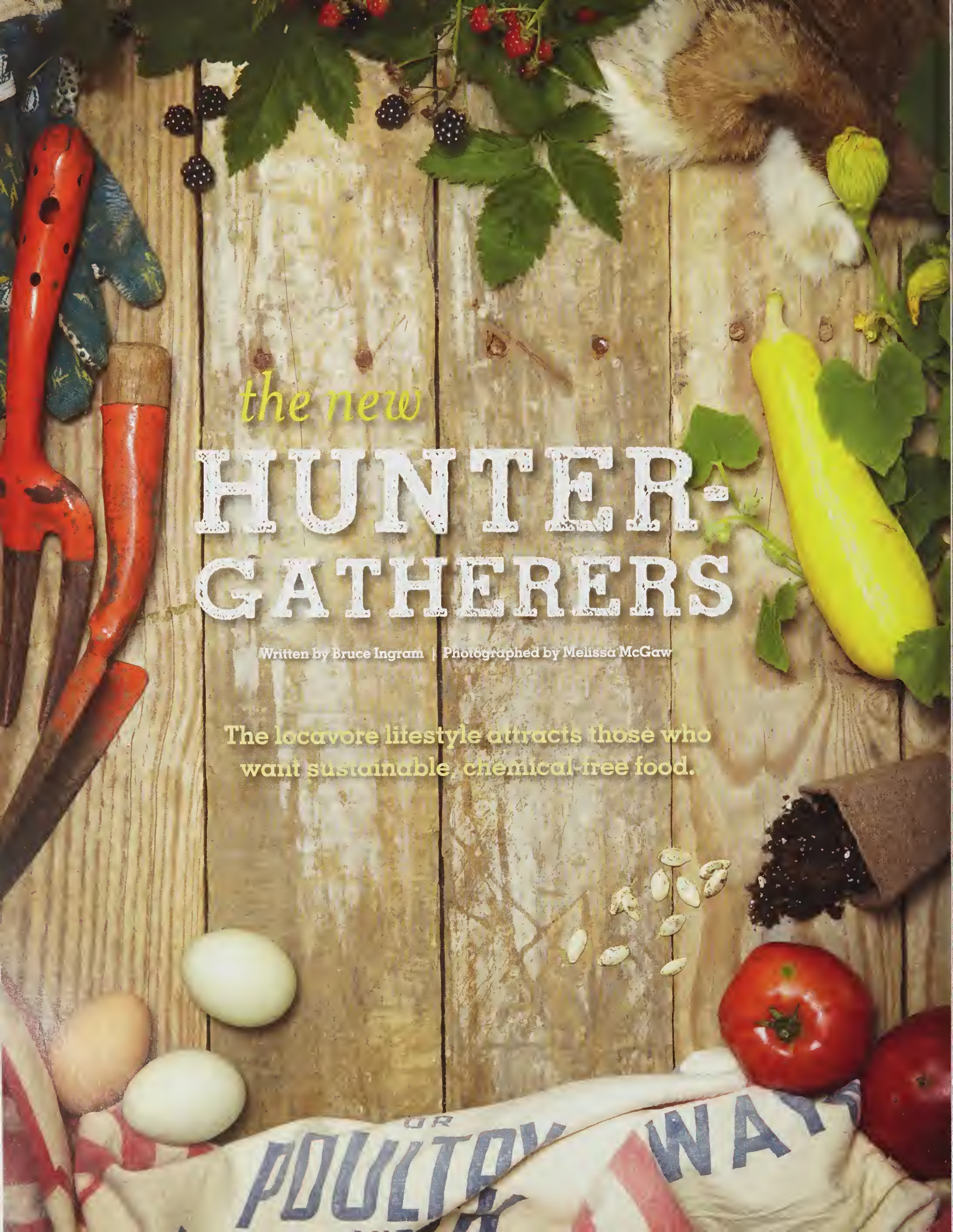
The fly I'm going to describe accomplishes the shiny look and durability as the others, but all you need is a few basic tools, thread, hackle and head cement. A hard-body black ant is a great fly to practice when learning to tie your own flies. It's primarily wrapping thread around a hook with some cement and a hackle feather. These are steps that form the foundation for fly tying. It's a great first fly to teach anybody that's new to fly tying, also, you don't have to be exact to have a fly that will catch fish, which is what most fly tiers want to accomplish anyway. It was the first fly that I learned to tie.

Start by clamping a number 10 dry-fly hook in the vise. If you're making black ants, I use 3/0 black monochord or 3/0 Uni-thread, if you're tying cinnamon ants, use orange. You want the thread size to be fairly large so it will build up quickly. I start by wrapping the thread on the rear third of the shank. Continue to wrap the thread until it starts to build up the abdomen. Stop and apply a drop of fly head cement several times while you do this, this binds the threads together which makes for a much more durable fly. In the middle of the shank, I attach a rooster feather by the base. And wrap the feather five or six times around the shank, with each wrap being directly in front of the previous one. This will simulate the legs of the fly. Also, this gives the fly some movement when its dead drifted in a current or fished downstream. Next, make a figure-eight wrap over the wound hackle, this will prevent the hackle from breaking after several fish have been chewing on it. I've fished black ants that had the hackles unraveling; I just don't think the fish hit them as well.

Next, wrap the thread over the hackle tip and cut the rest of the hackle. Here I start wrapping thread around the hook to make the head of the ant. Again, apply a drop or two of cement between wraps. I make a small round head and tie off the fly with a few half hitches or a whip finish and snip the thread. I'll coat the abdomen and head with the cement several times until it begins to have a glossy appearance. If you see any excess cement about to drip off, just slide a bodkin, or toothpick through it and this will remove it. Ants have a glossy appearance, this helps achieve that, but more importantly, this really makes the fly durable.

My panfish and trout fly boxes have a good supply of ants, equally as many red as black, and some with combinations of red and black. If I know I'll be fishing a tailrace stream sometime that summer, I'll tie up some small ones, maybe down to an 18. Black ants have fooled countless numbers of fish for me over the years. It's a great searching fly, or an ace-in-the-hole fly, just remember to keep some in a small corner of your box. You'll come across a time when those wary browns don't want your traditional dries, or those hand-size bluegills won't come up for a popper, you may have to get nasty and tie on an ant. You won't be disappointed.

Jeremy Grady of Morganton is a longtime contributor to Wildlife in North Carolina.



the new

HUNTER-GATHERERS

Written by Bruce Ingram | Photographed by Melissa McGaw

The locavore lifestyle attracts those who want sustainable, chemical-free food.

This past September was a very typical ninth month for my wife Elaine and me and the locavore lifestyle we live. When deer season began, I was afield on opening day and arrowed my first doe of the year that evening. We stayed up late that night butchering the animal and finished the task the next morning.

September also brings the ripening of the fruit from our Rome apple tree and our Dolgo crabapple tree, and we gathered the bounty from them both, the apples made into bread and the crabapples into both bread and cookies. We enjoyed some of those desserts that month, but several loaves and batches were frozen for the winter.

The month also saw the ripening of several wild foods. In mid-September, we visited a summer grape arbor, and those fruits were turned into jars of wild grape jelly. For a venison-themed meal one weekday night, we opened up one celebratory jar of jelly, but the rest were squirreled away for the winter.

A week later, we noted that the wild black walnuts in our woods had fallen. We then husked and shelled the nuts and with the last of the crabapples, Elaine made some delicious crabapple/walnut bread. That same week, I also checked out several persimmon trees to ascertain how they had produced and noted that the round orange globes should be ripe and ready, as expected, in late October and early November.

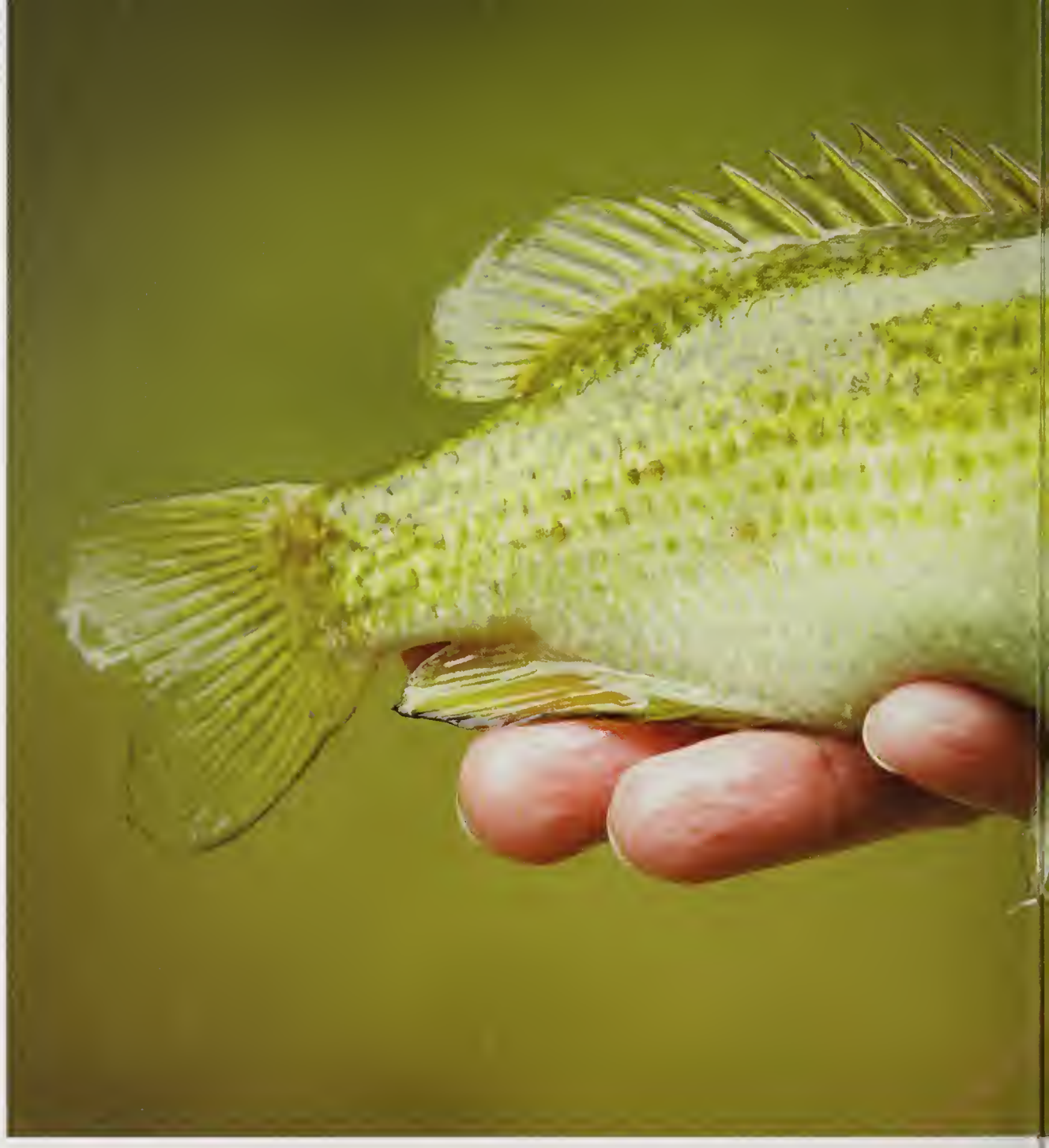
The last of the month saw me positioning several hang-on stands to take into account the acorn crop, the gathering of the last of the tomatoes from our garden, and with the garden being finished for the year, the annual "turning out of the chickens" into our vegetable patch. For the next four months, our Rhode Island Reds will, through their scratching, "till" the entire garden, as they search for the eggs and larva of insects and the little beasties themselves. With their droppings, our chickens will fertilize the plot. I also use the litter (straw mixed with chicken droppings) to mulch where next year's tomatoes, squash, potatoes, asparagus, onions and chives will grow. No need exists to buy chemical fertilizer or that unsightly petroleum-based black plastic as a weed preventer.

Oh, and I planted some clover and chicory in the seeded logging road that encircles our 38 acres (the deer should find the road even more to their liking come November and the rut), cut up an old oak snag for firewood that had fallen across the travel way (that wood and the energy that our solar panels produce will be much needed come winter), visited the local orchard and farmers' cooperative to stock up on fruits and vegetables (and the last watermelon of the year) and mulched our strawberry patch with the litter from our henhouse.

All in all, September proved to be a very good month, except I visited my favorite paw-paw patch a little late, and found only one piece of fruit remained, as the deer, squirrels and other creatures that relish "custard apples" as much as Elaine and I do had beaten me to them. And the shagbark and mockernut hickory nut crops produced a light crop on our land. Such is life.

Elaine and I love living the locavore lifestyle, as we feel it is a self-sustainable, self-reliant and very healthy way to live. For folks unfamiliar with the term, a locavore is someone who strives to eat food grown locally whenever possible. For us, that means meat gained through fishing and hunting, food grown in our garden, wild fruits and nuts gathered, eggs produced by our chickens and visiting local farmer's markets. Of course, we still have to visit the nearest supermarket, but, all in all, we're very satisfied with our smaller food and energy bills.

It's not just us who are striving to be locavores. Tom Beppler, a research associate with Responsive Management (a nationwide public opinion survey research firm specializing in natural resource and outdoor recreation issues) says more and more sportsmen are hunting for meat, whether it is deer or other game animals. In fact, a 2013 nationwide telephone survey showed that 35 percent of deer hunters went afield "for the meat," which also ranked as the most common reason listed for hunting.



BRUCE INGRAM

"...more and more sportsmen are hunting for meat, whether it is deer or other game animals."

Beppler says the single most important factor in the shift toward consuming wild meat may have been the global recession that began the previous decade. The economic downturn resulted in more families beginning to hunt or hunting more as a way of obtaining relatively inexpensive venison and the meat from other game animals.

"We've also observed a growing locavore movement in recent years, which emphasizes the importance of hunting as a source of natural, 'green,' sustainable, chemical-free food," he said. "Finally, gender may play a role in the shift toward hunting for the meat, especially given that there are more new female hunters in the field. Cross tabulations from some of the survey questions reveal that female hunters are generally more likely than male hunters to name 'the meat' as their most important reason for hunting."

Dr. David Cobb, chief of the division of wildlife management for the N.C. Wildlife Resources Commission, believes that more North Carolina men and women are hunting deer for the meat, but has "little data upon which to base that statement."

If you're interested in living the locavore lifestyle, here's a game plan on how to do so.

HUNTING FOR MEAT

The foundation for our entire food supply depends on deer season. Through bonus tags, antlerless seasons and programs such as Deer Management Assistance Program (DMAP), I annually strive to kill 10 whitetails. Elaine and I almost daily dine on venison in some form, and we never grow tired of eating this lean, healthy meat. Indeed, venison sports impressive amounts of iron, vitamins B-6 and 12, plus riboflavin and niacin (vitamin B-3) as well as being lower in calories and fat than beef and pork.

As a cancer survivor, Elaine appreciates the health benefits of venison. Elaine's nutritionist even encouraged her to make the switch to

venison as a healthy alternative to animals raised in feed lots and injected with who knows what. With our freezer filled with venison and the meat from wild turkeys and the occasional rabbit and squirrel, we don't need meat shipped from hundreds and even thousands of miles away and that comes on a plastic slab and is covered with cellophane.

FISHING FOR FOOD

I practice catch-and-release when angling for river smallmouths and highland wild trout and couldn't in good conscience consume either one of these game fish. But a stocked rainbow, a pond-reared bluegill, a lake crappie or striped bass, well, that's another matter altogether. Sometimes I think that the catch-and-release mantra has become so widespread, that we have forgotten that for many fish in many types of water, catching and keeping them is often good for that species of game fish and the fishery as a whole. Stunted crappies in farm ponds and abundant bluegills and sunfish in lakes are just begging to ride home with us. Grill or bake them for an extremely healthy and satisfying meal.

GATHERING WILD BERRIES

Fall is not the only season where nature's bounty awaits. In fact, just as venison serves as the base for our meat needs, summer's wild berry season serves as the focal point for our desserts for the rest of the year. For example, this past summer, Elaine and I picked five gallons of blackberries, five gallons of wineberries, and one gallon of our absolute favorite wild summer treat, the raspberry.

Elaine baked a number of pies and cobblers throughout the summer, and we still froze about seven gallons for our use until next summer's berry season. She also made about a dozen jars of wineberry jam, and we also set aside several quarts of blackberries for future pancakes and waffles as well as toppings for our morning oatmeal. By the way, the native wild blackberry imparts an appealing tartness to pancakes and waffles that their domesticated counterparts can't match.

Although fall, and especially summer, are the best seasons to gather wild berries, don't forget the spring. A true taste sensation is the wild strawberry, which is small in size and hard to find, but among the sweetest of all

While catch-and-release may be the mantra of the modern angler, some species benefit from harvest to prevent overpopulation. This rock bass hit an inline spinner and is headed for the pan. Wild raspberries can result in delicious jams and jellies.

HAPPY CHICKENS
MAKE HAPPY EGGS

wild fruits. Blueberries also ripen in the spring, and though not a berry, morels are certainly worth gathering in April. For a really superlative breakfast, scramble up some eggs from chickens you have raised and add in some morels that you have gathered. Add in some chives and onions from a backyard garden, and the wow factor comes into play.

GROWING A GARDEN

Next to our chicken run lays our garden. A solar-powered electric fence surrounds both in order to keep various creatures outside of these two separate enclosures. The side-by-side setup also facilitates the moving of chickens back and forth, as well as bringing the chicken litter to the garden. As noted earlier, we only grow about a half dozen foodstuffs, but they add zest to our meals from early April to early October.

Some of our favorite meals of the year are when I tag a spring gobbler and Elaine serves baked turkey burgers with onions and chives from the garden, plus sautéed asparagus in olive oil. Dessert is a pie made from the first of the cherries from our North Star cherry tree.

HAVING A BACKYARD ORCHARD

We just have a backyard orchard, consisting of two North Star cherry trees, young Black Twig and Grimes Golden apple trees, and the aforementioned Rome and Dolgo crabapple trees. We bought two North Star cherry trees because our old North Star succumbed to an attack from the 17-year-cicadas, and we were determined never to be short of sour cherries again. The now deceased tree averaged producing six gallons of cherries annually for over a decade.

If you decide to plant fruit trees, I strongly suggest that you protect them with wire enclosures and some sort of plastic guards to keep rodents and mice away from the bark. Also, you can buy different varieties so that the harvest is spread out over a longer period of time. For example, our Rome apples ripen in September, the Grimes Goldens in early October and the Black Twigs in late October/early November.

RAISING CHICKENS AND OTHER ANIMALS

Raising chickens is a very important part of our locavore lifestyle. The eggs from backyard chickens that have been allowed to roam about a run, the garden and in a backyard are much higher in healthy Omega 3 fatty acids than those from the sad creatures that spend their entire, abject lives inside tiny enclosures within industrial poultry houses.

We have had chickens for almost four years now, and the previously described labors that our birds perform in our garden are the major reason that our vegetable crops have been the most bountiful in the 25 years we have lived on our land. And though some folks don't like the noise of roosters crowing and hens cackling in the morning, I think those sounds are a symphony from creatures hard at work to make our lives more fulfilling.

Chickens aren't the only creatures that have a place in our back yards. One neighbor raises rabbits, another goats, both of which produce nutritious meat. A nearby friend of mine has started tending bees, and I have already put in an order for honey.

VISITING FARMERS' MARKETS AND COOPERATIVES

One of the best ways to keep rural America rural is to support local farmers' markets and cooperatives. Buying vegetables and fruits from just down the road is so much better for our pocketbooks and souls than purchasing these same items from supermarkets that have flown in foodstuffs from far away. Chatting with these local entrepreneurs is a marvelous way to learn more about different varieties adopted to do well in "home soil." Folks this close to the land have much to offer, including truly fresh vegetables, fruits, eggs and meat. Indeed, farmers' markets exist across North Carolina.

Lynn Shanklin Caldwell, who is the market manager of the Atherton Farmers Market in Charlotte, explains how this particular business works.

"The Atherton Market is a year-round, five-day a week retail experience that started as a farmers market but has grown into much more," she said. "It is a city market that showcases the best that the Piedmont region has to offer. Open since 2010, the Atherton Market farmers offer local, seasonal produce and other farm goods like meat, eggs and honey. The Atherton Food Hub acts as an aggregator for them during the week.

"There are also local purveyors who either make or seek out unique North

Opposite, chickens provide nutritious eggs and, on occasion, meat. Make sure your city ordinances and neighborhood covenants allow poultry. Above, wild plants like these onions can supplement the home garden, and goats can provide milk, cheese and meat.

"One of the best ways to keep rural America rural is to support local farmers' markets and cooperatives"

Carolina offerings, including dairy products, and prepared foods, as well as other consumables like bath products and tinctures and salves. The product mix is rounded out by the best coffee in Charlotte, as well as artisans of handcrafted items, including terrariums, jewelry and pottery. Most days there are food trucks for brunch and lunch. The Atherton Market doesn't believe in setting a mile radius for vendor consideration. They believe that being a locavore destination is about relationships and building community around food."

GOING SOLAR AND CUTTING WOOD

Tired of losing electric power every winter and not wanting to purchase an unsightly propane tank or a noisy gasoline powered generator, Elaine and I settled on solar power as our backup energy source. Monthly on average, our solar panels produce about 30 to 40 percent of our power and when demand is low, they actually send power back into the grid making our meter run backward—a most pleasant act to observe.

Our wood stove is also part of our energy game plan, and I cut all of our firewood from our 38-acre spread. One of my favorite activities is to search for a tree or trees that are crowding a hard- or soft-mast producer. I then conduct some timber stand improvement by removing the offending trees (and turning them into future firewood) while freeing up the day-lighted tree to produce more mast.

SUMMING UP

Elaine and I grew up in suburbia and had little connection with the natural world then. My very conservative parents frowned on fishing and hunting as at best something people with idle hands did and at worst, what ne'r-do-wells practiced. If we can become followers of the locavore lifestyle, so can just about anyone.

You don't have to live in a rural area like we do to be a locavore. Anyone with a back yard can raise chickens, vegetables and fruits. Folks in cities across North Carolina have farmers' markets nearby. Seriously, wouldn't you rather buy meat and produce from the family down the road than an agri-business in South America. ◆

Bruce Ingram is the author of five books on river smallmouth fishing, among them The New River Guide *and* Fly and Spin Fishing for River Smallmouths. *To order and/or to read his weekly blog on the outdoors: bruceingramoutdoors.com.*

For More Information

A number of excellent books exist for those who want to become locavores. I recently read Hank Shaw's "Hunt, Gather, Cook" and came away impressed with his knowledge of little known weeds, plants and even invasive species and how they can be eaten. Anyone who knows how to turn acorns into food is worth reading. For those folks who aren't anglers or hunters, Shaw details how they can become sportsmen and women.

Another excellent tome is Barbara Kingsolver's "Animal, Vegetable, Miracle." This book is the story of a year in Kingsolver's family where the members strove "to feed ourselves animals and vegetables whose provenance we really knew..." Elaine and I found the work almost poetic in its tone and inspiring as well. On a personal note, this book is one of the reasons Elaine and I decided to begin raising chickens. For information on the former book, visit rodale.com, for the latter, harpercollins.com.

Christy Shi is the program coordinator for Community Food Strategies at the Center for Environmental Farming Systems out of North Carolina State. Shi strives to organize a network of local food councils in the state. She listed the following as information sources, most of which are in the western part of the state.

Responsive Management: responsivemanagement.com

Organic Growers School: organicgrowersschool.org

Useful Plants Nursery/ Earthhaven Ecovillage: earthaven.org

Ashevillage Institute: ashevillage.org

Hunt NC Farmland: ncagr.gov/Hunt

Sustainable Poultry Network: sustainablepoultrynetwork.org

Local Harvest: localharvest.org

ASAP Farm Directory: buyappalachian.org

Carolina Farm Stewardship Association: carolinafarmstewards.org

Atherton Market: athertonmillandmarket.com

TRUE PATRIOTS AND FALSE ALBACORE

Broken rods and busted knuckles are just part of the scene in the revitalized Cape Lookout Albacore Festival.

Written by **Beau Beasley** | Photographed by **Thomas Harvey**

THE BREEZE OFF THE COAST WAS UP A BIT, RESULTING IN A NUMBER OF MENACING, WHITE-TOPPED WAVES BUT NOTHING TO CONCERN A SEASONED CREW. A NOTICEABLE TRAIL OF BRIGHT RED BLOOD FROM BOTH THE CREW AND THEIR ADVERSARIES RAN DOWN THE GUNNELS OF THE SMALL BOAT, BEARING TESTIMONY THAT THE SHIP HAD RECENTLY SEEN BATTLE.

The crew stood motionless awaiting instructions from the ship's able and experienced Capt. John Snipes. "Hold your fire, boys," said Snipes in a low, measured tone. "They're headed right for us, but anything could change with these weather conditions. Steady boys—steady." We felt the tension in the air mount as the target approached. Each crewman checked and rechecked his weapon, and then came the order: "Let 'em have it, boys!" Snipes shouted. "Fire as fast as you can, and keep it going until they're out of range."

Standing near the front of the boat, John Mauser cast his fly into the wind and toward the finned marauders approaching the boat at breakneck speed. The water near the boat became a churning mass of fish and foam, with false albacore slashing back and forth as they plunged headlong after their prey. The baitfish, fleeing for their lives, were so harried that they actually leapt from the water in a desperate bid to escape the ravenous false albacore pursuing them like a relentless pack of wolves. Nothing remained in the marauders' wake but a remnant of stunned and dazed baitfish floating near the top of the water, where they were quickly picked off by opportunistic dive-bombing gulls eager for a quick meal.

Mauser, who works at the North Carolina Aquarium at Pine Knoll Shores, set the hook almost as soon as his fly hit the water.

Opposite: The presence of feeding birds like pelicans and gulls alerts anglers to the carnage below as false albacore feed on schools of Atlantic silversides or other small baitfish. Above, an angler admires an albacore caught on fly tackle before returning it to the water.

Mauser's rod bowed and reel screamed under the immediate and sustained pressure. Excitement and anxiety soon gave way to exertion and determination as every member of the boat's small crew fought to hang on to rods and reels as overtaxed as Mauser's own. The fight was on, and each angler struggled to bring his prize to hand.

We don't eat false albacore, so they're of little value to commercial fishermen—but recreational anglers absolutely love them because albies fight like mad. Anglers who aren't prepared for this fast-paced, chaotic action soon learn the hard way that they either adjust to the prevailing conditions and the blistering albie runs, or they'll be left standing in the boat wondering what the heck just happened.

Broken fly lines and broken rods are a common experience with these extremely aggressive and hard-fighting fish. Make no mistake: False albacore fishing really tests the limits of an angler's gear and skill, and it's not for the faint of heart. On my first albie fishing trip I didn't move my hand out of the way fast enough, and the zinging fly reel handle nearly broke my knuckle. It only bled a little, but it hurt like the devil.

The quiet seaside town of Atlantic Beach, played host to a revival of the Cape Lookout Albacore Festival (CLAF) last fall. The festival had lost steam over time until John Snipes, local anglers Tommy Bennett and Mauser, and a few other members of the Cape Lookout Fly Fishers Club decided to resuscitate it and "use it as a fundraiser," recalls Snipes, who works in the insurance industry but fishes as often as he can. "With all the challenges our military families are facing, we decided to give 100 percent of the proceeds to Project Healing Waters Fly Fishing (PHWFF). They're an awesome organization, and we're happy to assist them."

Chris Thompson, a festival participant and member of the local Project Healing Waters Crystal Coast Program, was intimately involved in reviving the CLAF, and with good reason. As a former Marine Corps scout sniper, he understands the benefits of PHWFF firsthand. Thompson, who suffered a career-ending back injury and suffers from constant pain and nerve damage as a result of his military service, readily admits that he needed help adjusting to civilian life.

"When you're in constant pain and you lose the career you've always wanted, it's very depressing. PHWFF gave me an outlet by providing fly fishing opportunities and a sense of belonging once again." Thompson is quick to point out that PHWFF is not "just a fishing program" but provides regular meetings during which program members "learn to tie flies, build their own fly rods from scratch, and enjoy the company of other veterans" facing similar challenges.

"Albies are an awesome species of fish and fight like crazy," says Thompson. "They hit your fly with reckless abandon and tear off like a freight train once they realize they've been hooked." In fact, it's not uncommon for unsuspecting anglers to have rods jerked completely out of their hands. Once hooked the battle has just begun, because landing one of these speed demons will take everything you've got.

False albacore anglers generally use a 9- or even a 10-weight fly rod and use clear intermediate fly lines or slow-sinking intermediate lines. Simple flies that mimic baitfish are especially effective: Clouser minnows in a variety of colors often work, as will patterns that are sparsely tied to imitate local baitfish generally referred to as "silversides."

Want to increase your odds of hooking an albie? First, limit your false casts. An angler who consistently and accurately casts 25 to 35 feet is much more likely to hook up than one who requires 90 seconds of false casting to present his fly 70 feet away.

Second, cast in front of the breaking fish you see or in the middle of the school. Rest assured that below the breaking fish are plenty of fish that you can't see—and they're on the sides of the school as well. Use a strip strike to make your hook set; raising your rod here will only pull your fly away from the fish or break the tip off your rod.

Finally, while it is important to get your fish on the reel to fight him effectively, never let go of the fly line to reel in your fish. Instead keep tension with your line hand, and let the fish place *himself* on the reel with his speed.

Once the fish is to the boat, your real challenge begins. Albies will continue to swim in circles with all they've got—and this may result in crossed lines. Unlike other species false albacore can't "stop and catch a breath" or be revived by gentle handling. They need water continuously moving through their mouths to keep their gills open so they can breathe. While some guides net albies, most lean over the sides of their boats and grab the fish by its hard forked tail and yank it up out of the water. The fish's tail provides a perfect handle, and grabbing the albie this way reduces the chance that a net might accidentally injure the fish's gills.

Once on board, albies have been known to cough up their prey, spreading blood, scales, and bits of baitfish all over the deck—which makes the deck slippery and look like the set of a slasher flick. They will often shake violently as if they are trying to swim out of your hands, so keep a good grip. Once a photo or two is taken, release your catch by throwing him over the side of the boat and into the water like a spear. This action immediately opens the fish's gills and helps him breathe.

PROJECT HEALING WATERS FLY FISHING

For most of us, the "War on Terror" and the nation's military operations in Iraq and Afghanistan have never been much more than stories on the nightly news. By stark contrast, our men and women in the armed forces have suffered (in many ways) over the past decade: the loss of a limb, constant headaches and memory loss as a result of a Traumatic Brain Injury, and Post-Traumatic Stress Disorder are just a few of the daunting challenges returning vets face.

Project Healing Waters Fly Fishing is dedicated to reaching and rehabilitating our veterans through fly fishing. All members of the military are welcome to participate in PHWFF programs regardless of their length of service or their physical limitations. All gear and instruction—and even transportation to PHWFF outings—is provided free of charge. For more information, please see projecthealingwaters.org.

The tail of the albacore serves as a useful handle for landing and releasing the fish. When hooked, albacore are capable of drag-searing runs, sometimes sounding deep.

If you try to gently release your albie like he's a red drum, striper or speckled trout, he will only sink like a rock and become someone else's happy meal on the ocean floor.

False albacore begin migrating off the coast of North Carolina beginning in October and can stay active right through Christmas. An average false albacore can weigh anywhere from 3 to 6 pounds, though they fight like fish that weigh three times that much. In fact a cruising albie swims an amazing 35 miles per hour and is shaped like a torpedo. Their large eyes, set well back on their heads, give them excellent peripheral vision—just what you need when chasing something small that is fleeing from you. Larger albies, the ones that weigh in at 10 pounds or more, generally come along later in the season and can stay on the surface feeding in schools that spread over several acres. An actively feeding school of false albacore is quite a sight.

If you'd like to try your hand at false albacore fishing, why not start this season? You can speak to your local fishing store or fly shop, and they'll point you in the right direction. Consider participating in the CLAF; both conventional and fly anglers are welcome. If you're taking on albies for the first time, I highly recommend hiring an experienced guide; boat-handling skills are crucial in this kind of topsy-turvy, fast-paced fishing environment. And save your own skin: Keep your hands *away* from the reel when your albie makes his run, or you'll leave your own trail of blood on the boat deck. ◆

Beau Beasley (beaubeasley.com) is the Director of the annual Virginia Fly Fishing & Wine Festival (vaflyfishingfestival.org) and the author of "Fly Fishing Virginia" and "Fly Fishing the Mid-Atlantic." He lives with his wife and children in Warrenton, Va.

THERE'S STILL TIME TO FISH THIS YEAR

Last year's Cape Lookout Albacore Festival Tournament featured participants from throughout the Tar Heel State as well as Virginia, Maryland, South Carolina, Georgia, Florida and even Texas. The event raised $10,000 to benefit PHWFF.

The 2nd annual CLAF Tournament will be held Oct. 23–24. (In addition, on Oct. 22, PHWFF members and supporters will enjoy a day of noncompetitive fishing.) Entry fees are $125 per angler; special dinners and other events will be held throughout the weekend as well.

Major sponsors for last year's CLAF included Temple Fork Outfitters, Jake Jordon Fishing Adventures, Crystal Coast Tourism Authority, and the N.C. Aquarium at Pine Knoll Shores, as well as other local sponsors. For more information on how to become a sponsor, volunteer guide, or to assist in some other way with this year's CLAF, please visit capelookoutalbacorefestival.com.

THE Life AND Death OF MR. BISBING

Latest technology tracks one great egret from Moyock all the way to his demise in a drought-stricken area of Colombia.

How often do you see a bird flying high in the sky and wonder, where is it going? Some birds make amazing migrations of thousands of miles—how long has that bird already been flying? How much farther does it have to go? Migratory birds must have amazing stories to tell, but we are left to imagine the details as we watch them fly overhead. Until now. ...

The latest generation of tracking tags produces such detail on movements and behaviors of animals that scientists can use them to tell the story of bird migrations, even if they fly to Cuba or South America, as some of the great egrets in this study did. We used new tracking tags with solar-powered GPS units that show where the egrets go, with live data sent via text messages each day. An on-board accelerometer serves as a motion sensor that allows scientists to decode an animal's behavior, be they walking, resting or flapping their wings.

As a test of this technology we tagged seven great egrets from eastern North Carolina. Because they are one of the largest wading birds, they could carry the tracking tag on their backs. Also, because they nest in mixed-species colonies, they are representative of wading birds in general. Historical data suggest great egrets migrate long distances after nesting, although we didn't know any details of these journeys.

Written by Dr. Sara H. Schweitzer, Dr. Melissa Beckman, Dr. John Brzorad and Dr. Roland Kays

Photographed by Melissa McGaw

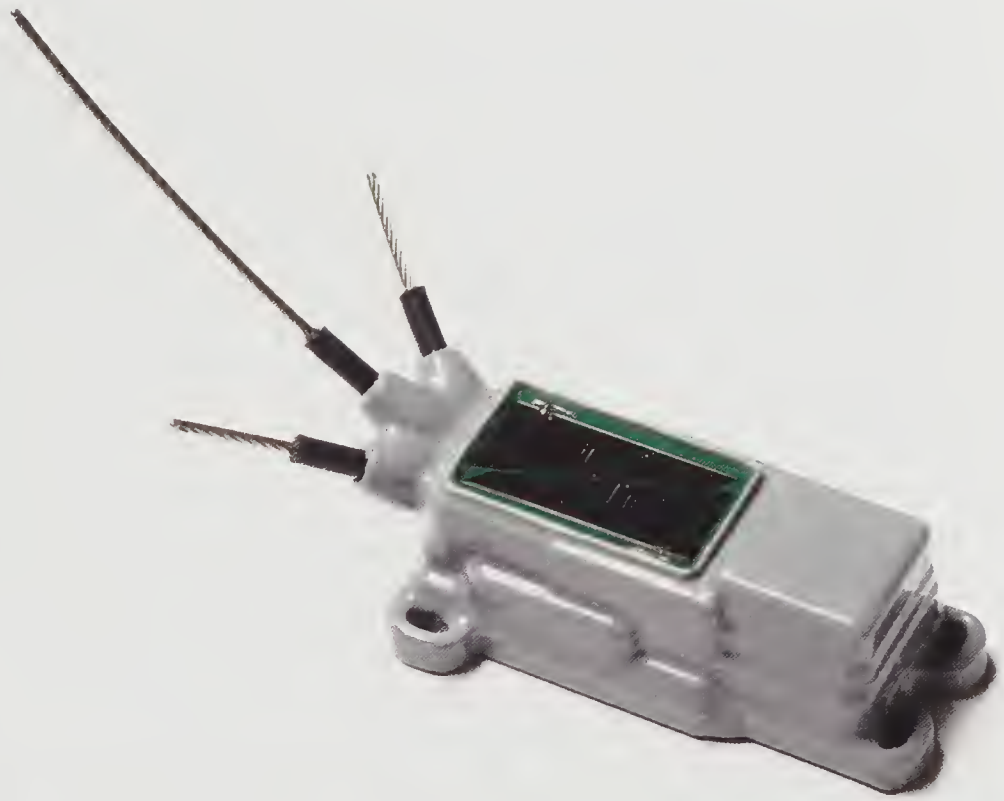
The most amazing thing we discovered was how different each of the egrets was from one another. One egret stayed in the shadowy worlds of our gum-cypress swamps near Elizabeth City and only migrated 60 miles down to Lake Mattamuskeet in the winter. Another egret we caught near Beaufort spent the whole year in local marshes practicing her hunting skills. This was a young bird not yet ready to breed. Our three breeding adults, on the other hand, all made magnificent treks around the continent. Two birds we caught at Lake Mattamuskeet in April both migrated north to breed, one to Gloucester, Mass., and the other to Niagara Falls, N.Y. One of these egrets caught a 35 mph tail wind and flew from North Carolina to New York City in one night, reaching speeds over 60 mph. On his return trip south, he launched out over the Atlantic Ocean, north of Boston, and made landfall in Jupiter, Fla., after a 59-hour flight over the ocean.

Our favorite story comes from our third long-distance migrant, Mr. Bisbing. Mr. Bisbing was a great egret named after the principal of Moyock Elementary School, near his capture site. We met Mr. Bisbing in the marshes near Corolla where we lured him into our traps with bird decoys and a basin of fish. On April 21, 2013, we released him in front of the Outer Banks Center for Wildlife Education, and followed his every movement for the next seven and a half months via his tracking tag.

We immediately learned an important part of Mr. Bisbing's story — he had a nest on Monkey Island, a known wading bird colony. The GPS data showed us that he used two different parts of this small island — one spot on the south that was his nest and another spot to the north where he must have gone when he needed to get out of the house. After all, only one parent can sit on eggs or tend the young at once.

The acceleration sensor in Mr. Bisbing's transmitter recorded his movements in 3-D, allowing us to learn about his behavior. On a graph, three lines describe Mr. Bisbing's movements: up and down (blue), forward and backward (green), and right-left (red). Different behaviors create patterns we can identify. When resting, all lines are flat. When walking, each foot-step creates a similar, but slightly delayed pattern in blue and green. Wing-beats associated with flying show strong peaks in blue. The accelerometer data are recorded in snap shots every 4 minutes, for 4 seconds at a time.

While Mr. Bisbing's motion is recorded by changes in the lines on a graph, the relative position of the lines to each other shows his position relative to gravity. Occasionally Mr. Bisbing would rest at night in a horizontal position, motionless, with the blue line above the green line. This was different than his roosting position, which was green line over blue over red. We learned that this horizontal posture was actually Mr. Bisbing incubating eggs. This was exciting news. And then, between May 17 and 19 Mr. Bisbing showed an unusual behavior, he stayed at his nest for almost 60 hours straight, sitting down, then getting up, then sitting down repeatedly. Great egret young usually hatch one at a time, so we assume this must be when Mr. Bisbing's chicks hatched.



Global positioning system transmitters like this can be carried by large wading birds like egrets and have allowed scientists to learn about migration and nesting habits. Egrets are captured in traps, lured in by decoys and fish for bait.

After May 19, Mr. Bisbing completely changed his daily schedule. Before that day his routine was rather irregular, including long periods of rest and foraging in many different areas north and south of Monkey Island. After May 19, Mr. Bisbing chose marshes south of Monkey Island and west of Corolla as his absolute favorite foraging sites. He foraged there more than 90 percent of the time during the next two months and only flew north to find food twice. We assume the wetlands west of Corolla became the new preferred foraging area because they are much closer to Monkey Island than the northern marshes. By choosing the closer food source, Mr. Bisbing could save time and energy, which he urgently needed to feed his offspring. Could he have been surveying the most productive sites before the kids came along?

Surprisingly, Mr. Bisbing left the nest all day and came back only in the evenings to help feed the chicks. This behavior was likely caused by the remote location of Monkey Island and long commuting time to and from feeding sites. Long flights cost time and energy, and as Mr. Bisbing was raising his chicks he needed to budget these factors. Remember our cypress swamp bird? His colony was only a few flaps and a glide from his foraging grounds. Seems there's more than one way to raise an egret!

On July 17, Mr. Bisbing got up before dawn and took off for a major change in his life. Breeding season was over, his offspring were on their own by now, so he could regain his strength by eating voraciously and resting like a tourist on the coast. So he took off, flying south along the coastline. He spent the next few weeks on islands in the southern Roanoke Sound, then farther south near Oregon Inlet. As autumn wore on and temperatures got chilly, his daily schedule became more and more irregular, and his foraging trips took him farther and farther south. Perhaps this was training to get prepared for his next big adventure. . . .

On Oct. 24 at 7:15 p.m., Mr. Bisbing took off for his last long trip—his migration south. By 8:25 p.m., the Hatteras light slipped into the inky night and our bird headed due south over the open Atlantic. What followed was an impressive 24-hour nonstop flight with sunrise and a full day above the featureless ocean. Mr. Bisbing made land fall at Eleuthera Island in the Bahamas at 8:20 p.m. the next day. The accelerometer data show he flapped the whole way, 715 miles from Cape Hatteras, averaging 29 mph. Had his bearing been 20 degrees farther east, he would have missed land altogether. Did he aim at a star? Follow an experienced bird? Navigate by the Earth's magnetic field? We don't know. Amazingly, he took only one day to recover from the long flight, and in the evening of Oct. 26, he flew another 270 miles in six hours to reach the northeast coast of Cuba by 2 a.m.

After 20 days in Cuba, Mr. Bisbing was on the move again, migrating about 250 miles farther south to Jamaica where he stayed for almost two weeks. The next data we received were from Nov. 29, and at this time, Mr. Bisbing was already about 600 miles farther

Right, caution must be exercised when handling egrets. The sharp bill and dexterous neck can be hazardous. Below, an egret heads for the skies after being fitted with a GPS transmitter.

south in Colombia. From there he flew another 133 miles northeast, to Cesar Province, Colombia. The GPS tells us that he arrived here on Dec. 2, and he stayed and presumably foraged in this area for another couple of days, until his movements stopped on Dec. 8. This was the last step of his migration; indeed, the last flight ever for Mr. Bisbing. His tag was still sending data, so it must have been in a sunny location to keep powering its solar panel. It took us a few days to realize that the tag had completely stopped moving, and that Mr. Bisbing had probably died, or possibly dropped the harness off his back.

Our next challenge was to see if there was a dead bird at the site and recover the tag so we could download detailed data (the daily text messages from the tag to us just sent us select GPS points) and analyze the results. We started asking around among colleagues and birders to find someone locally in Colombia who would be able to search for the tag at the GPS location.

Eventually, through contacts in the Colombian Bird Network we received an email from Magaly Reyes Ardilla, who told us she would search for the tagged bird! We found a biologist who was willing to help us, a world away in Colombia. We gave her the exact GPS location, then she started her scavenger hunt.

She found the tag exactly where we thought it was, and also the feathery remains of Mr. Bisbing in Plot No. 16 of the San Miguel, Vereda, the Navajo town of El Copey Cesar, Colombia. We are very grateful that Magaly took the time to recover and send the tag back to the Museum of Natural Sciences in Raleigh.

But what caused Mr. Bisbing's death? The area where he chose to forage had been affected by an unusual summer with no rain in five months, and pictures Magaly sent show that the vegetation was very dry. The only water sources were man-made wells for cattle. One of the farm workers reported that he had seen the dead egret and its transmitter about two months before she arrived looking for it. He did not handle the dead bird but observed that he "did not see any wounds on the bird."

Although we can't be sure, we guess that Mr. Bisbing died of starvation. It seems he migrated straight into a drought. He chose a foraging area that didn't provide enough food to recover from his depleted reserves. Was he inexperienced in this area, or was it the unusual drought that turned his trip into a disaster? Were other egrets with him? We can only make informed guesses about this individual bird. What would have happened had he stayed in North Carolina? Well, it seems it was a tough year for great egrets all over the hemisphere. Lake Mattamuskeet experienced ice and snow last winter, and we observed emaciated and dying egrets there as well.

The impressive movement abilities of great egrets are probably key to their success. Our preliminary data show that winters can be harsh for water birds all over the world, be it from frozen conditions or droughts. Mr. Bisbing was unlucky in his site selection, but hopefully his chicks, which he left behind in the Outer Banks, had better

luck. With more tracking data on more egrets and similar wading birds, we will better understand how and why they choose particular locations to spend the summer or winter, what migration pathways and resting stop-over sites they select. We can use this knowledge to help them survive in an increasingly developed world. The connections among countries and biologist-colleagues will also continue to grow through this and other efforts to understand the full life-cycle of migratory birds. As Mr. Bisbing showed us, protecting them only in North Carolina is not enough.

You can participate and help us in these efforts too, by using a new application called Animal Tracker on your smartphone. With this app you can follow GPS-tagged birds live in real-time. You can even use this app to find GPS-tagged birds in the field, take pictures, and send them back to us via the app. Right now, a new project is tagging great blue herons along the Catawba River in partnership with the Catawba Science Center and 3M. Other ornithologists are sharing osprey data from birds that migrate through North Carolina. So give it a try—check out the location of the closest bird, and have a wildlife adventure that helps us learn more about these species.

Soon, when you see a bird flying high overhead, you may be able to answer questions about where it's going and why—closing the loop to mysteries about bird migration and our connections to many countries through "our" birds.

Dr. Sara Schweitzer is the N.C. Wildlife Resources Commission's Waterbirds Investigations & Management Project Leader. Dr. Melanie Beckmann is working on a post-doctorate at the N.C. Museum of Natural Sciences. Dr. John Brzorad is Director of the Reese Institute for the Conservation of Natural Resources at Lenoir-Rhyne University in Hickory. Dr. Roland Kays is Professor of Mammalogy at N.C. State University and Director of the Biodiversity Lab of the N.C. Museum of Natural Sciences.

Wings flash above the river and a rattling call grabs your attention. No other North Carolina bird sounds quite like the

Bold and Beautiful Belted Kingfisher

Text, illustrations, and nature activity by Anne M. Runyon

Hovering like a hummingbird above your head, a male kingfisher scolds and flies off along the shore. He hovers again, dives head-first into the water and comes up with a small fish pinched tight in his bill. Flying to a snag, he bangs his fish dead against the branch. Deftly, he tosses, turns and gulps down the fish, head-first. You have stepped into his fishing territory. He patrols all along the bank, rattling at intruders to chase them away. He hopes to attract a female. When she lands on his branch, he'll court her with fish gifts and a sliding hop-dance. After mating, the pair will build a riverside home.

MASTER BUILDERS

Each spring after courting, kingfishers dig a new nest burrow, or re-work an old one. While one bird digs, the other perches nearby and rattles loudly. They shuffle in and out of the burrow, using their short legs and thick partially fused toes to kick out a plume of soil. They dig upward into a sandy clay bank near clear water, where many small fish drift and swirl. After a week, the burrow is dug and these noisy birds become quiet.

BIRDS IN A BURROW — KINGFISHERS AT HOME

Laid in a nest, at the end of the burrow, six glossy white eggs rest warm under mom (or dad) for 22 days. Chip, crack and struggle, each chick leaves its egg. Bunched tight in a huddle, they warble and chatter. Mom fluffs out her wings and cuddles her brood. Dad feeds them fish mush for breakfast and dinner.

As they grow stronger, they gobble whole fish. Each hungry chick eats one fish for breakfast and one fish for dinner. Both parents are busy. That's 12 little fish to be caught every day! These babies keep clean in their underground home. They squirt poop on the wall, then peck down some dirt to cover their mess and widen their den.

Sixteen days after hatching, most feathers have sprouted and the chicks have grown strong. Hop, flap and shuffle, restless chicks in the burrow. Now fully feathered, almost ready to fly, the chicks jostle and peer from the edge of their hole. Dad perches nearby, calling, calling, fish in his beak. But no fish fed today.

Twenty-eight days after hatching, these young birds are eager. They are hungry and ready to fledge, to fly from their nest. Mom and dad call to them. Dad holds out a fish. One bold young bird flaps and explodes from the burrow. Flutter and flap, she lands beside dad. She gobbles his fish. Rattle, flap. Rattle, flap. Flutter, flap. Flutter, flap, flap. One after another, each bird leaves the burrow.

Six little kingfishers line up on a branch, watching mom hover and dive for a fish. Both parents bring fish, but not quite enough. Six kingfishers perch, scanning the shallows. First they snag crayfish and insects that crawl. Then hover and dive for quick little fish. When a hawk swoops down, talons extended, dad screams an alarm . . . and six little kingfishers dive under water. The family scatters when summer ends, each bird fishing and roosting alone through the winter. The burrow, dug into the bank, lies empty.

Male belted kingfisher courts his mate with a fish and a hop dance.

Get Outside

Belted kingfishers live year-round in North Carolina, although few remain in our mountains during the cold winter months. Look for these birds perched on wires strung over the ditches beside roads. Look for them on snags, or diving into the clear open waters of rivers, streams, lakes and swamps. Fall, winter and early spring are the best times to see and hear them as they noisily establish and defend their fishing grounds. During nesting season (April–June) mated birds become much more secretive. The wintering migrants have gone, and our resident birds establish larger territories to be able to feed their young. Respect their need for privacy and do not disturb them at their burrows. They may abandon their nests if disturbed.

Read and Find Out

- "Birds of the Carolinas" by Eloise F. Potter, James F. Parnell, and Robert P. Teulings, The University of North Carolina Press,1980
- "National Geographic Field Guide to the Birds of Eastern North America" by John L. Dunn and Jonathan Alderfer, National Geographic Society, 2008.

On the Internet:

- Belted Kingfisher life history. From the Cornell Lab of Ornithology. allaboutbirds.org/guide/Belted_Kingfisher/lifehistory
- Belted Kingfisher calls. From the Cornell Lab of Ornithology. allaboutbirds.org/guide/Belted_Kingfisher/sounds
- Belted Kingfisher fishing and eating. From the BBC Natural History Unit. arkive.org/belted-kingfisher/megaceryle-alcyon/video-00.html
- Belted Kingfisher digging nest and incubating eggs. From the BBC Natural History Unit. arkive.org/belted-kingfisher/megaceryle-alcyon/video-09a.htm

Find out more about Project WILD Workshops and literature at the Wildlife Commission's website at ncwildlife.org.

Belted Kingfisher Mini Mask

1) Copy design on sturdy paper at 115%. 67lb cover stock works well.

2) Fold in half along center line and cut out head.

3) Unfold and cut away tabs on left side of head.

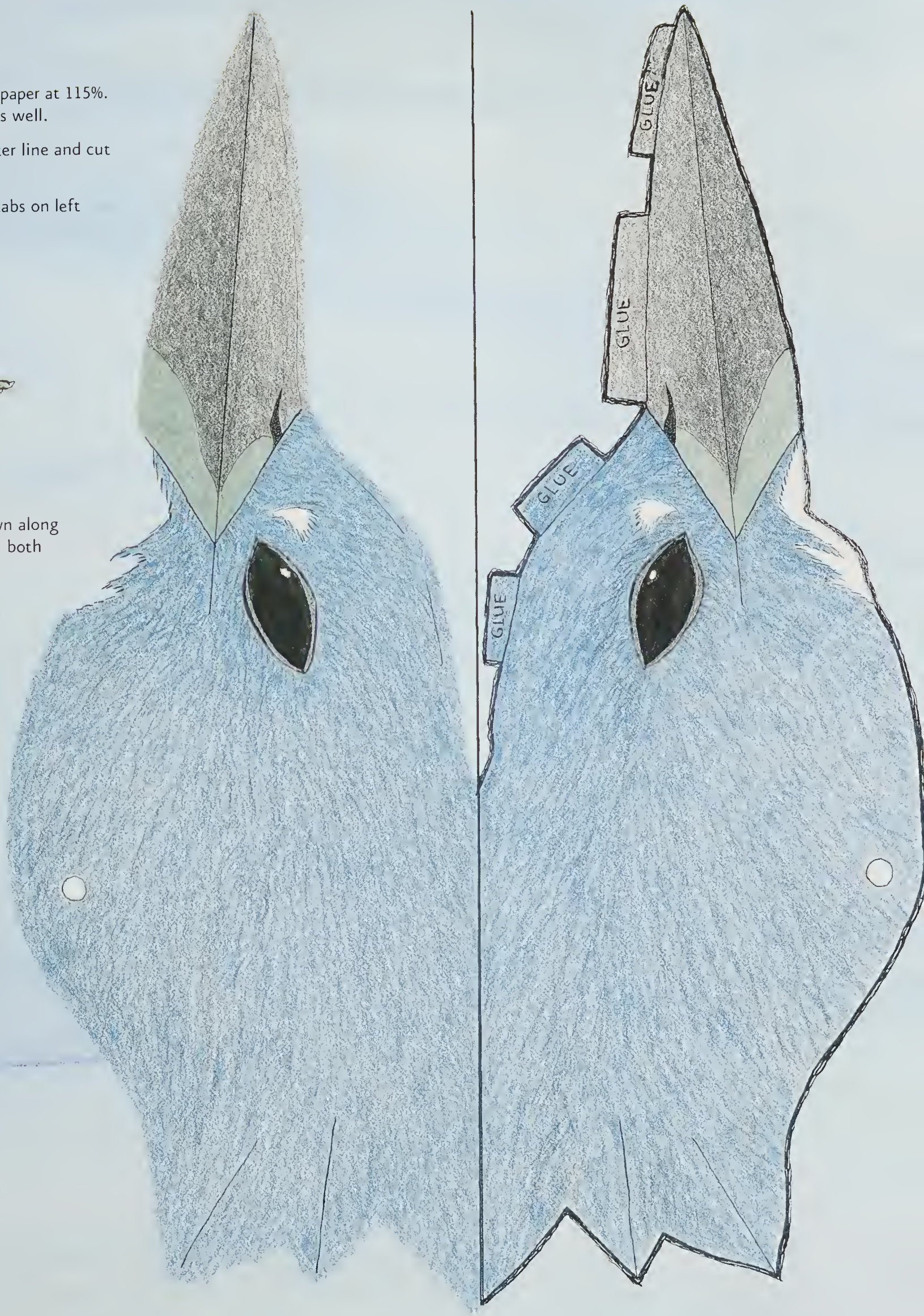
4) Pinch to fold beak down along center (mouth) line on both sides of head.

5) Pinch to fold beak up along black line where attached to head on both sides.

6) Pinch to fold down along 4 crest lines on back of head.

7) Fold 4 tabs down and glue inside of the left side of the head.

8) Punch out the two holes, add string and your belted kingfisher is ready to wear as a mini mask or hat.



New Fishing Access on the Dan River

The N.C. Wildlife Resources Commission, along with Jessup Mill, has opened a new public fishing access area on the Dan River in the Westfield community of Stokes County.

The Jessup Mill Public Fishing Area is located 6.1 miles upstream of Hart's Access at N.C. Hwy. 704. GPS coordinates are 36.525714, -80.370674. The fishing area consists of a parking lot with 11 parking spaces and a turnaround area for trailers; a set of concrete stairs with adjoining slide to help paddlers carry kayaks and canoes up and down the stairs; and a concrete walkway connecting the stairs to the parking area.

The new public fishing area is a partnership between the Wildlife Commission and Jessup Mill, an outdoor recreation business that offers camping, tubing, music, and other outdoor events on the banks of the Dan River across from the new access area.

Andrew Jones, the owner of Jessup Mill, donated use of the site to the commission to provide river access to the public — a unique partnership in which the access stairs are used by both the visitors to the river and Jessup Mill clients.

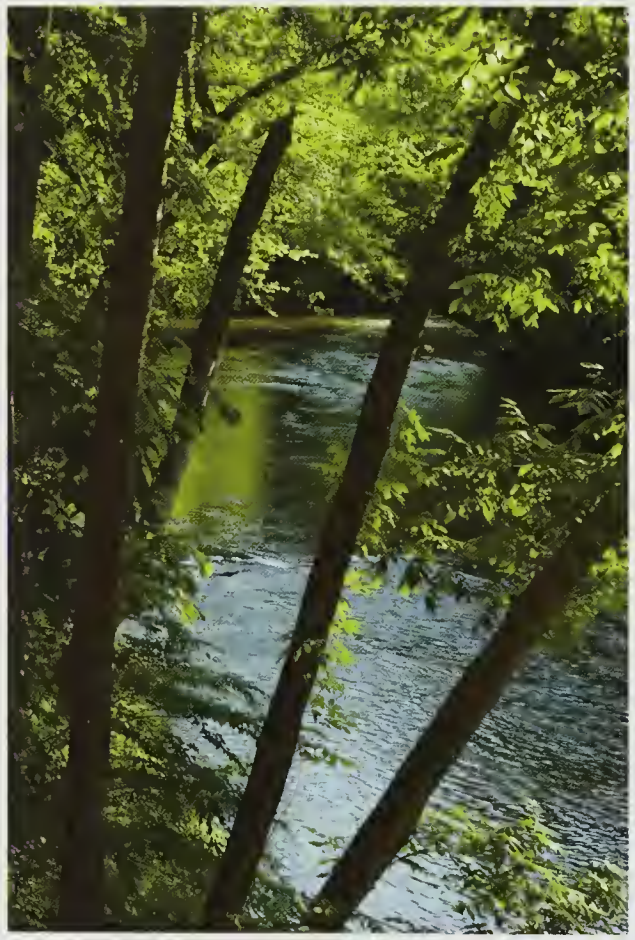
Because this section of the river is relatively shallow and rocky, Kin Hodges and Jones recommended the use of paddlecraft, such as canoes and kayaks.

This part of the Dan River also provides good opportunities for anglers to catch smallmouth bass, redbreast sunfish, and possibly trout.

"The site is immediately below the lower boundary of a Hatchery Supported Trout Water on the Dan River, so anglers also should have a good chance of catching stocked trout that have migrated downstream," said Hodges, a District 7 fisheries biologist with the Wildlife Commission.

Private-public partnerships like this are one of the ways the commission is working to provide anglers with access to public waters — access that in some western waters is very limited. The Wildlife Commission constructed the Jessup Mill Public Fishing Area with funds from the Sport Fish Restoration Program and fishing license sales receipts.

For more information on fishing in public, inland waters, including an interactive map of more than 500 public fishing access areas throughout the state, visit ncwildlife.org/Fishing. Built in 1910 as Union Mill, Jessup Mill is on the National Register of Historic Places and offers recreational and family-friendly activities that build on the heritage of fishing and outdoor recreation. Visit jessupmill.com for more information.


MELISSA McGAW/NCWRC

MELISSA McGAW/NCWRC

NCWRC

e NEWSLETTER

Get N.C. Wildlife Update—news including season dates, bag limits, legislative updates and more—delivered to your Inbox from the N.C. Wildlife Resources Commission. Sign up at ncwildlife.org/enews.

Outdoor Heritage Becomes Law

In July Gov. Pat McCrory signed into law the Outdoor Heritage Act (House Bill 640), which includes measures to promote wildlife-related recreation and youth involvement in outdoor activities across the state. The legislation creates an Outdoor Heritage Council, along with a trust fund to engage youth in the outdoors, amends some wildlife regulations and provides for Sunday hunting with firearms on private property with restrictions. The law takes effect Oct. 1. Details are included in the *2015–2016 North Carolina Inland Fishing, Hunting and Trapping Regulations Digest*.

In April, the N.C. Wildlife Resources Commission adopted a resolution in support of the Outdoor Heritage Act because of its focus on private property rights, additional hunting opportunities and increased public involvement in outdoor activities, including fishing, horseback riding, camping, hiking and bird watching.

The legislation allows for hunting on Sundays with the use of firearms on private property with written permission from the landowner, beginning Oct. 1, with the following provisions:

- Hunting on Sunday between 9:30 a.m. and 12:30 p.m. is prohibited, except on controlled, licensed hunting preserves.
- Hunting of migratory game birds on Sunday is prohibited.
- The use of a firearm to take deer that are run or chased by dogs on Sunday is prohibited.
- Hunting on Sunday within 500 yards of a place of worship or any accessory structure, or within 500 yards of a residence not owned by the landowner, is prohibited.
- Hunting on Sunday in a county having a population greater than 700,000 people is prohibited — affecting Wake and Mecklenburg counties only.

Viking 62 Wins Big Rock

Even though the Viking 62 team enjoyed an enormous lead throughout the 57th annual Big Rock Blue Marlin Tournament, the final hours proved a bit agonizing until the contest was finally over.

Viking 62, captain Brian Komer, Riviera Beach, Fla., and angler Earle Hall, Hampton, Va., took the tournament's lead early June 8 when they showed up at the scales with a 680-pound blue marlin. Their catch was big enough to have won 26 of the past 30 Big Rock competitions, but that didn't make the final hours of the tournament go by any faster.

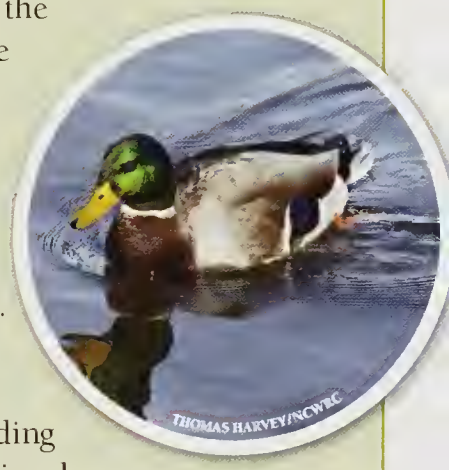
"It's by far the longest week of my life," Komer admitted after Viking 62 was finally declared the winner. "Hooking the fish 15 minutes into the first day, I knew we had a long week ahead us. We still went out there, stuck with our game plan and we didn't let up. It worked out just great." Viking 62 won $560,500 from the Big Rock's $1,632,650 purse.

EZ Boy placed second overall and won the outboard division with a 556.3-pound blue marlin caught June 11. EZ Boy captain Van Pierce of Trinity and his angler Eric Kimball almost released their catch but decided not to after getting a good length measurement. EZ Boy collected $202,525 for finishing second and an additional $8,925 for finishing first in the outboard division.

Proceeds from the Big Rock competitions are designated to support tournament charities and other local organizations. Since 1988 $3,365,836 has been donated to local charities.

Duck Numbers Look Good

The U.S. Fish and Wildlife Service (FWS) released its report on 2015 Trends in Duck Breeding Populations in July, based on surveys conducted in May and early June by FWS and the Canadian Wildlife Service. Overall duck numbers in the survey area are statistically similar to last year and remain strong. Total populations were estimated at 49.5 million breeding ducks in the traditional survey area, which is 51 percent above the 1955–2014 long-term average and the highest count on record. Last year's estimate was 49.2 million birds.



SPECIES ESTIMATES ARE:

Mallards: 11.6 million, similar to the 2014 estimate and 51% above the long-term average.

Gadwall: 3.8 million, similar to the 2014 estimate and 100% above the long-term average.

American wigeon: 3.0 million, which is similar to the 2014 estimate and 17% above the long-term average.

Green-winged teal: 4.1 million, which is 19% above the 2014 estimate and 98% above the long-term average.

Northern pintails: 3.0 million, similar to the 2014 estimates and 24% below the long-term average.

Redheads: 1.2 million, similar to their 2014 estimate and 71% above the long-term average.

Canvasbacks: 0.76 million, which is similar to the 2014 estimate and 30% above the long-term average.

Scaup: 4.4 million, which is similar to the 2014 estimate and 13% below the long-term average.

Black ducks (Eastern Survey Area): 541,000, which is 11% below the 2014 estimate and 13% below the long-term average.

For a complete list and to view all the data and get a species-by-species breakdown, visit www.ducks.org/DuckNumbers.

CALENDAR OF EVENTS

Saturday–Sunday, Sept. 12–13

The 12th Annual Wildlife Festival will be held at Currituck High School in Barco, featuring artisans from up and down the Eastern Seaboard. Original paintings and prints, carvings, decoys, photography and other items are available. Cost is $5.00 for adults, for both days, and children under 12 are free. Visit coinjockruritanclub.com.

Saturday, Sept. 26

Celebrate National Hunting and Fishing Day with the N.C. Wildlife Resources Commission. Interactive activities and demonstrations vary for each event, but all provide unique opportunities for participants of all ages to connect with nature and test their outdoors skills. For information visit ncwildlife.org/NHFD.

Thursday–Saturday, Oct. 13–17

The U.S. Open King Mackerel Tournament at Southport-Oak Island is an event to showcase the great fall fishing Southport-Oak Island area has to offer. Hundreds of boats fish it each year eager for the $25,000 first prizes. Go to usopenkmt.com for more information.

Readers should check with the contact listed before traveling to an event. Items for listing should be conservation-oriented and should be submitted at least four months in advance to mike.zlotnicki@ncwildlife.org, or call 919-707-0175.

LIFETIME LICENSES

Help conserve wildlife for future generations. In 1981, hunters, anglers and wildlife enthusiasts became shareholders in an innovative investment and conservation program called the North Carolina Wildlife Endowment Fund.

Today, the commission has 19 different lifetime licenses in five categories: Infant, Youth, Adult, Senior and Disabled.

The endowment fund for wildlife was a simple yet revolutionary idea: Create a lifetime inland fishing or hunting license. Put the license fees into a special fund. Spend the accrued interest, not the principal, on programs and projects that benefit fish and wildlife. To learn more or to purchase a lifetime license visit ncwildlife.org/licensing or call 1-888-248-6834.

Search Tool for Trout Anglers

The N.C. Wildlife Resources Commission has developed a new online search tool for anglers who are interested in fishing for trout in western North Carolina.

Using the Public Mountain Trout Waters Search, anglers can find places to fish for trout by county or by regulation classification. Waters in the commission's Public Mountain Trout Waters Program fall into one of seven classifications, each with its own set of regulations: Delayed Harvest Trout Waters; Hatchery Supported Trout Waters; Catch-and-Release/Artificial Lures Only Trout Waters; Catch-and-Release/Artificial Flies Only Trout Waters; Wild Trout Waters; Wild Trout / Natural Bait Waters; and Special Regulation Trout Waters.

After anglers enter their search criteria, they can sort results alphabetically by county, classification and stream name. When they have identified a water of interest, they can click on the map link, which takes them to an interactive map that zooms directly to the selected water. The search tool also provides a link to additional information about rules, regulations, and season dates specific to selected waters. Anglers also can download and print a list of waters within their search, along with rules and regulations, to take with them when fishing.

"Through this new search tool, we wanted to provide anglers with a new way to explore the numerous public mountain trout waters the commission manages in western North Carolina," said Jacob Rash, the commission's coldwater research coordinator. "By allowing anglers to customize their search, establishing direct linkages to maps, and providing a diversity of information throughout the search tool and associated maps, we are optimistic that anglers will find it easier to go trout fishing."

The new search tool can be accessed in several locations on the commission's website, including the Trout Fishing Page, which also provides additional information about trout fishing resources and destinations in North Carolina.

New Location for WRC State Fair Exhibits

The N.C. Wildlife Resources Commission's exhibits at both of North Carolina's State Fairs will move to new locations this year.

At the NC State Fair in Raleigh, Wildlife moves to a location between the Children's Barnyard and the Old Farm Machinery Building, just steps from the Village of Yesteryear. The State Fair runs Oct. 15–25.

Our Mountain State Fair exhibit relocates to the new Davis Center exhibition building on the grounds of the WNC Agricultural Center in Fletcher (Henderson County). The Mountain State Fair runs Sept. 11–20.

This year's wildlife exhibits will feature the outdoor fun that the commission offers year-round, including fishing skills, shooting sports, boating and wildlife-watching.

The state fair button, which the agency has given away each year since 1981, features the bobcat, North Carolina's only native wild cat.

At the Raleigh State Fair, visitors of all ages can practice their aim at the Laser Shot™ Rifle Range and learn about firearms safety from Wildlife Enforcement Officers. A woodland trail shows the variety of animals you might see locally, from commission game lands to a wildlife lover's back porch. The commission's logo Lab, Alvin, will promote boating safety and pose for pictures wearing his dog life jacket.

Kids at the Mountain State Fair exhibit can discover and touch signs of forest animals. Visitors can customize their own fishing brochure based on their preferences for location, species, and type of access. Details are at mountainfair.org, and ncstatefair.org/2015/Attractions/NC-Wildlife-Resources-Commission.

Why Do Bobcats Have Tufts On Their Ears?

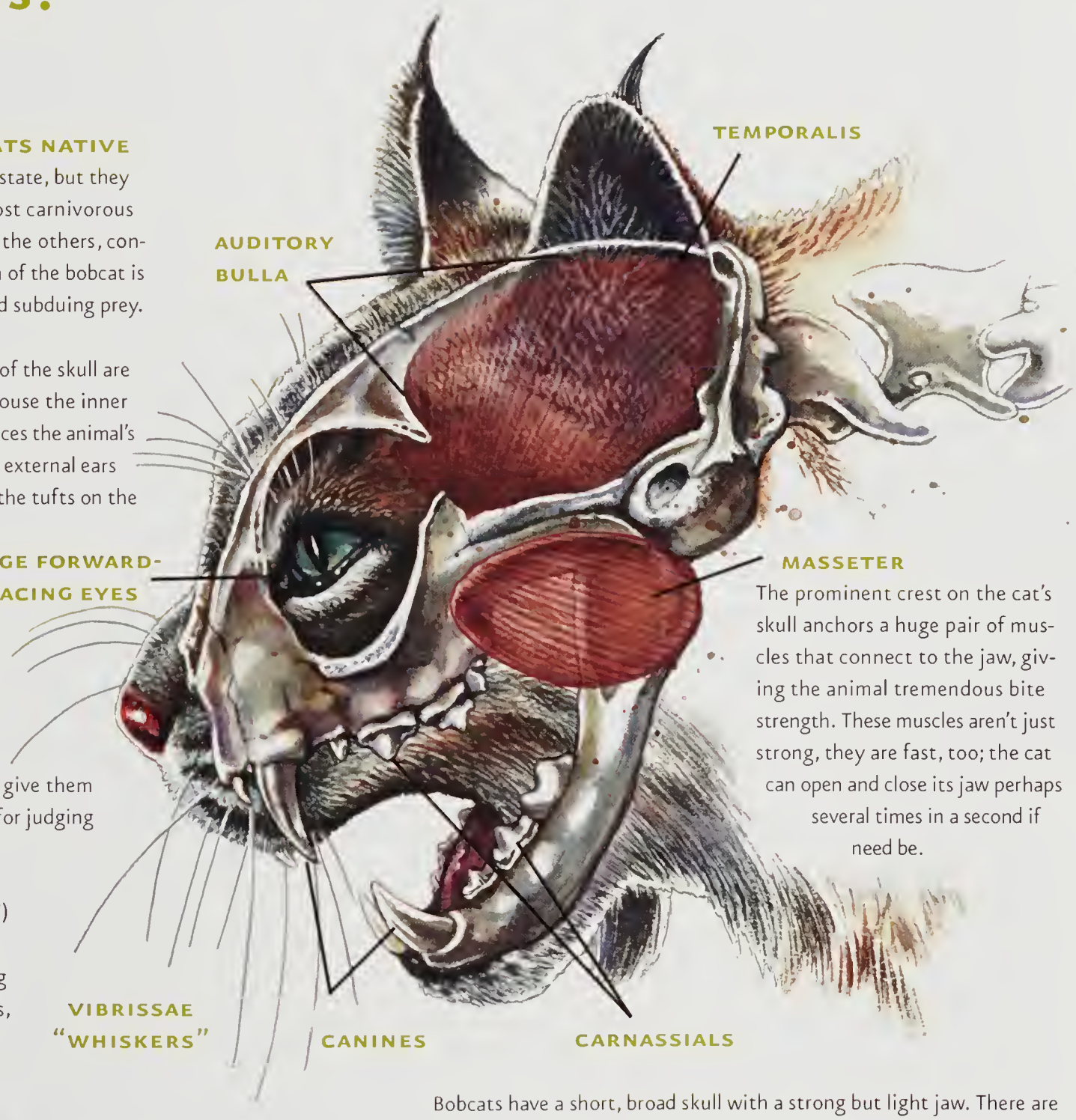
written by Clyde Sorenson
illustrated by Jim Brown

BOBCATS ARE THE ONLY CATS NATIVE to North Carolina that remain in the state, but they seem to be thriving. Cats are the most carnivorous land mammals, and bobcats are, like the others, consummate predators. Most of the form of the bobcat is dedicated to the task of capturing and subduing prey.

The large swellings on the underside of the skull are the auditory bullae, chambers that house the inner ears. The large size of the bullae enhances the animal's ability to hear prey. The large, mobile external ears focus and directionalize sound. Why the tufts on the tips of the ears? No one really knows! However, there is some evidence that they help detect certain frequencies.

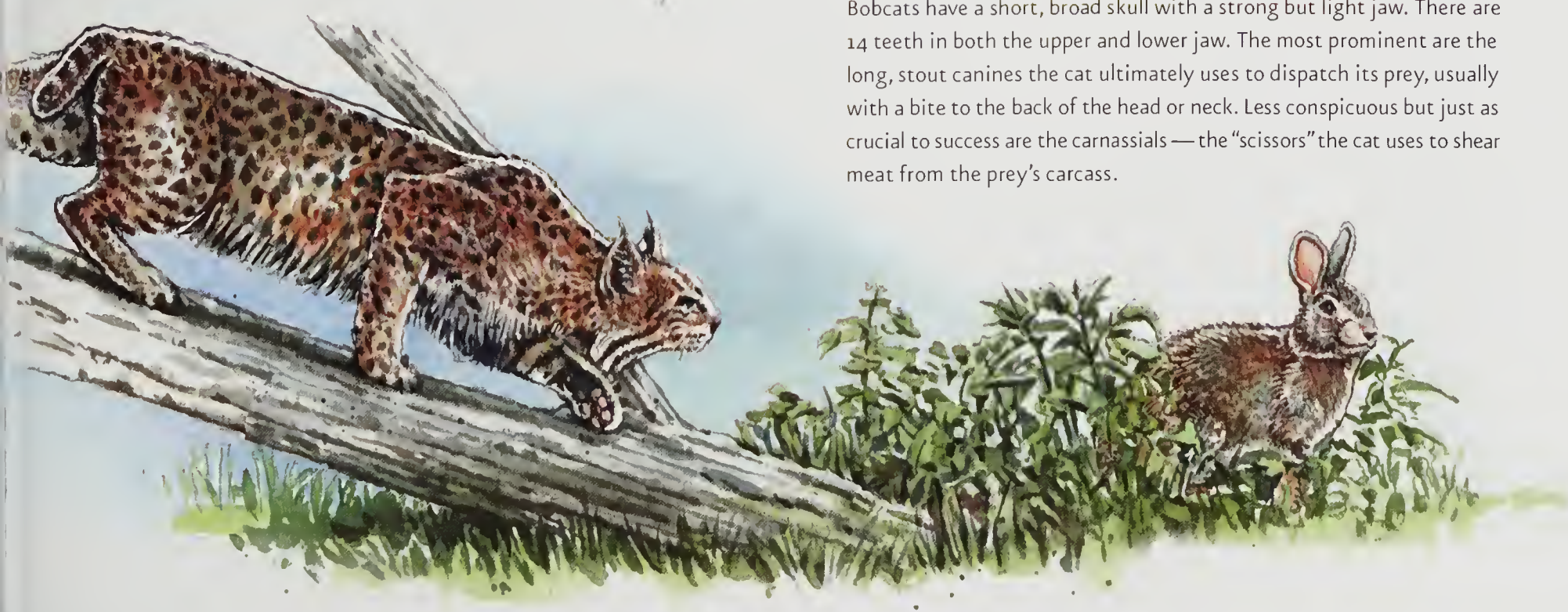
Bobcats have proportionately huge eyes, with huge pupils, giving them excellent vision in low light conditions. Their forward-facing eyes also give them excellent binocular vision, necessary for judging distances to potential prey.

The prominent vibrissae ("whiskers") are sensitive to touch but also to air movement; when the cat is preparing to pounce, they, like the eyes and ears, are focused on the prey.



MASSETER
The prominent crest on the cat's skull anchors a huge pair of muscles that connect to the jaw, giving the animal tremendous bite strength. These muscles aren't just strong, they are fast, too; the cat can open and close its jaw perhaps several times in a second if need be.

Bobcats have a short, broad skull with a strong but light jaw. There are 14 teeth in both the upper and lower jaw. The most prominent are the long, stout canines the cat ultimately uses to dispatch its prey, usually with a bite to the back of the head or neck. Less conspicuous but just as crucial to success are the carnassials — the "scissors" the cat uses to shear meat from the prey's carcass.



Gear Gone Wild

written by Jim Dean

In the spring of 2013, I wrote a column titled "Triage for Treasures," that described the belated beginnings of my efforts to deal with a lifetime of accumulated stuff—I am understandably reluctant to use the word junk, though that very term was employed by my son, Scott, and my daughter, Susan. In the two years that have passed, I can report that some progress has been made to deal with what amounts to over six decades of, ahem, accumulations. To my surprise, it has not been the painful experience I anticipated. Indeed, it has often been rewarding, even pleasurable, with some unexpected benefits (not the least of which is that I can walk easily through a now nearly empty attic and navigate a basement workshop and laundry room that are, if not empty, far better organized. The things I still use are readily accessible and the rest ready for further dispersal later.

JIM DEAN

Also, as I noted in that earlier column, it is pleasing to know that I am not leaving a horrendous chore for my heirs to deal with, and I have found good homes for many things I once feared might be destined for the county landfill. Nor am I haunted by morbid thoughts that I am preparing for my own demise, but instead feel a sense of renewed freedom. As such, if you are of a certain age and dreading the downsizing of the artifacts of your obsessions, fear not. You will not regret having started the process, and even if the task is never finished, your family will treasure your memory all the more for having tried.

"Why in the world had I kept 45 years of tax records, and many other boxes of farm and family business receipts that would never be needed?"

I'd like to say that I don't believe I have ever been a true hoarder. Those guys on TV's "American Pickers" would not find much of interest among my things, but I have always had lots of hobbies, and I have always thought that I might return to earlier hobbies again at some point—occasionally I do—so I figured why not hang onto that stuff? At some point, however, that rationale is clearly flawed.

On two hot spring days in 2013, Scott and I cleaned out my torrid attic and carried all but a few things to the carport. I was astonished to see how little of this vast pile had any value, sentimental or otherwise. Why in the world had I kept 45 years of tax records, and many other boxes of farm and family business receipts that would never be needed? I loaded them all roof high into my 4Runner and took advantage of a free bank-sponsored shredding day. All of it was mulch in 30 minutes.

Other items unwanted by my family were placed at the curb over the following week. Almost all disappeared overnight as if by magic. Other loads were donated. Old photos and memorabilia from ancestors long dead were stored in large plastic bins. Someone may eventually wish to review and keep some of this, but it will not reside in my attic.

Later that summer, we tackled the laundry room's accumulations and again found little that couldn't be set at the curb or donated. Two down.

Because one of my most enduring lifetime hobbies has been fishing, it's not surprising that angling and boating gear pretty much filled the larger basement workshop and two closets upstairs. I gave away or sold cheap half a dozen older fly rods, then spent weeks going through other rods, reels, tackle boxes, lures, fly-tying materials, books, countless maps and other gear, including two large boxes crammed with plastic worms (why, pray tell?). I kept items I still use, or thought I might use (no small amount, either), but the rest was carefully sorted for disposal.

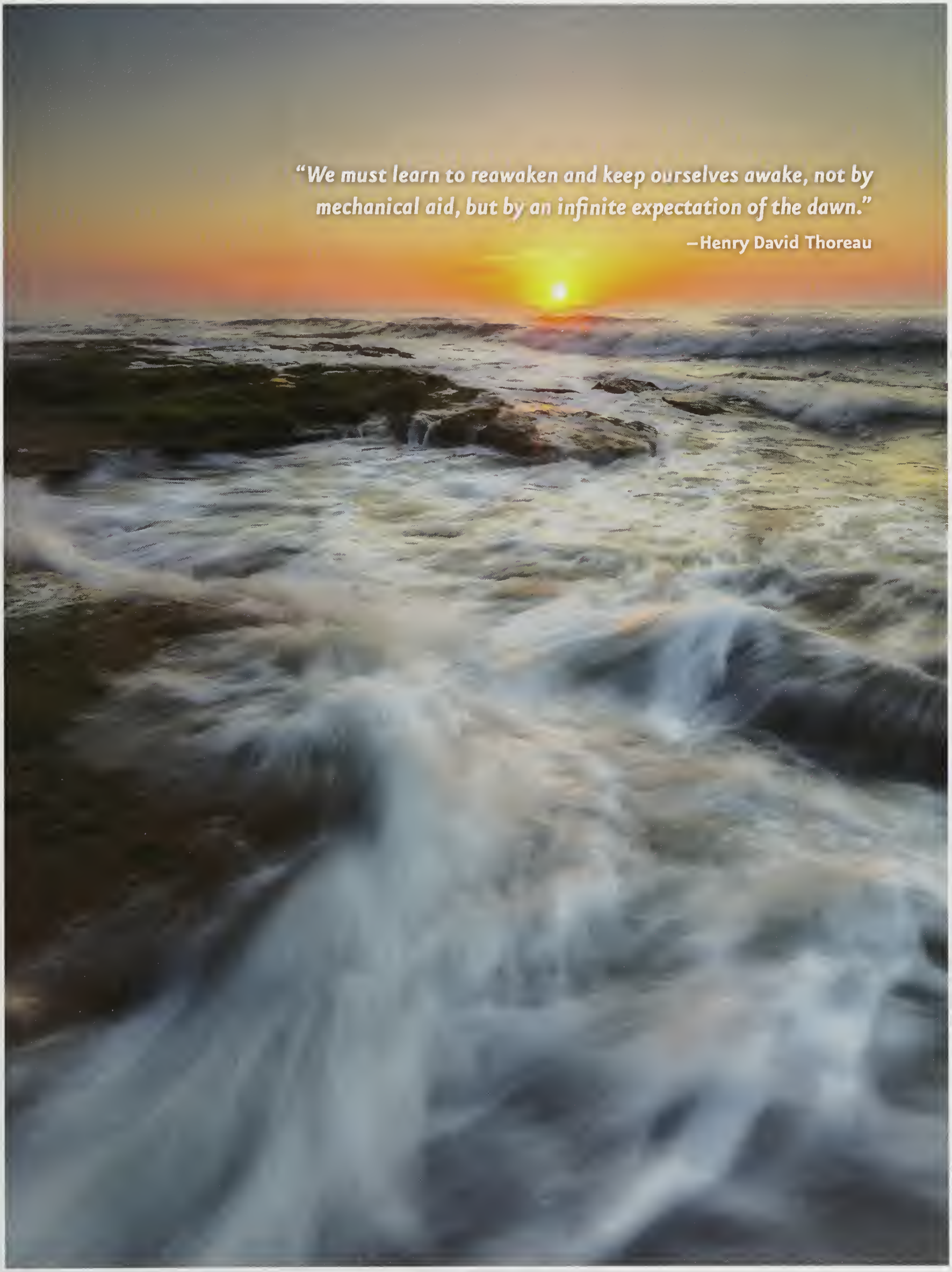
Because I thought a lot of this stuff might be useful to other fishermen, I organized it into categories, made computer listing of items (13 pages, single spaced!), and sent the list to fishing buddies and local angling and fly-fishing clubs.

Then, this past spring, I set aside several days over a weekend for anyone interested to come pick through the piles, which, once again, nearly filled my carport. I set out a cooler with free beer and soft drinks and, at one point, I counted 38 visitors. I gave away many items, and sold others at what I believe were very modest prices.

Looking back, I have to say that it was one of the most enjoyable experiences I've had in years, and I saw many old friends and met many new ones who share my obsession for fishing. Indeed, I have decided to do it again in the not-to-distant future, adding more and even better items I no longer use.

True, I watched some things depart with a certain wistfulness. But I kept thinking of those plastic boxes of ancient photos and forgotten names. After all, we're likely only remembered beyond our grandchildren's lifespan only if we do something truly infamous.

And now, I have enough to buy a new fly rod I've been eyeing.



CHARLES ENGLISH

Coquina rocks at Fort Fisher

OUTDOOR MOMENT

IN THE NOVEMBER · DECEMBER ISSUE

KEITH A. HENDRICKSON/NCWRC

LIVING WOOD

The Core Sound Decoy Carvers Guild began nearly 30 years ago when Wayne Davis celebrated his birthday with six other Harker's Island carvers.

RAVER'S MAGIC

For more than 60 years, Duane Raver has enchanted and educated thousands of outdoor enthusiasts with his paintings and illustrations.

MISSION UNFULFILLED

If you dream of killing a trophy buck this season, here are some tips on how not to accomplish your task.

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